Socio-economic Analysis of Factors Influencing the Longevity of a Rural Business: A Case Study of Bourgault Industries Limited, St. Brieux, Saskatchewan, Canada

A Thesis Submitted to the College of Graduate Studies and Research in Partial Fulfillment of the Requirements for the Degree of Master of Science in the Department of Bioresource Policy, Business, and Economics, University of Saskatchewan, Saskatoon.

By

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ABSTRACT

As a result of various factors, rural areas in Saskatchewan have experienced a massive decline in its population as well as in its economics base. Industrialization of the agricultural sector has been identified as a prominent factor which has now made it possible for fewer people to perform activities previously performed by several people. In addition to this, the need to achieve efficiency in the use of mechanized farming implements has further enhanced the consolidation of smaller farms into larger ones. These events have led to the release of some farmers from farming activities and, hence, out-migration from rural areas to larger cities in search for more job opportunities.

The need to strengthen the economic base and the population of rural areas have raised the question that what other economic activity is possible in rural area apart from farming, hence, manufacturing may offer some opportunities.

This study has adopted a case study approach to investigate the factors influencing the location decision as well as the factors influencing the success of a rural manufacturing firm called Bourgault Industries Limited. Bourgault Industries Limited is a rural family-owned manufacturing firm established in 1974 and it is located in St. Brieux, Saskatchewan. Apart from being a commercial success, its presence has also fostered the population and economic growth of St. Brieux. It is therefore important to investigate the factors that influenced the location decision in this rural area as well as the various factors that have contributed to the company's success.

In order to conduct this investigation, a conceptual framework developed from the review of literature, location theory, X-inefficiency theory, social, family and human capital theories was adopted to explain the roles of different factors in the success of this company over the last 40 years.

Outcomes from this investigation reveal that the success of Bourgault Industries Limited lies within the interwoven relationship of right timing, organizational strategies, social cohesion and family ties, location specific factors, adoption of no-till technology and continuous product development.

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CHAPTER 1: INTRODUCTION

Many manufacturing companies in Canada have relocated their manufacturing plants to low wage countries thereby making manufacturing jobs to be out-sourced to these countries (Krzepkowski and Mintz, 2013). However, there are some indigenous companies that have remained within the country and have been able to compete successfully. Among these companies is Bourgault Industries Limited located in a small town, St. Brieux, in Saskatchewan, Canada. Despite its location in a rural region, Bourgault Industries Limited has been able to remain a viable enterprise over the last forty years when some of it contemporaries have either relocated to larger centres or have been bought out by full-line manufacturers. It is therefore important to investigate the factors that influenced the location decision in this rural area as well as the various factors that have contributed to the company's success in this location.

The success of Bourgault in St. Brieux has shown that rural manufacturing can serve as a means of supporting rural population as well as rural economy.

1.1. Rural and Farm Population

In Canada, the rural population has declined significantly in the last 160 years from about an 88 percent share in 1851 to about an 18 percent share in 2011 (Statistics Canada, 2012c). In 2011, the rural population was about 6.3 million, which is approximately 18 percent of the entire population (33,476,688). The shift from agriculture to industrialization has been identified as one of the factors contributing to decline in rural population in Canada (Statistics Canada, 2012c).

The advent of industrialization has supported an evolutionary change in agricultural practices. Generally, agricultural practices in Canada have evolved from being labour intensive to being capital intensive. With the use of agricultural equipment, one person can perform activities previously performed by several people. The use of agricultural machinery has improved the farmer's efficiency and has created time for other economic and personal activities. In order to achieve economies of scale through the use of mechanized farm equipment, a large farm size is required. This has led to the consolidation of smaller farms into larger ones and, hence, the release of labour from agriculture to other sectors of the economy. Average farm size in Canada increased by 30.1% between 1991 (598 acres) and 2011 (778 acres), while the total number of farms decreased by 26% between 1991(280,043) and 2011 (205,730) (Statistics

Canada, 2012b). In order to secure a better living standard most of the labour released from farming activities out-migrate from rural to urban areas.

In 2011, about 34 percent of the population in Saskatchewan lives in rural areas (Statistics Canada, 2012c). Rural Saskatchewan has experienced a large population decline over the past four decades (see figure 1.1). The decline in population has been the result of a lack of new economic activity to absorb the labour being released from agriculture. Many rural businesses have been closed down as well as some public service activities such as schools and hospitals. The younger farm family members have relocated to larger cities leaving older farmers to populate the rural areas. The average age of farm operators in Saskatchewan has increased in the last 20 years. In 2011, 54.6% of the farm operators in Saskatchewan were 55 and older and the average age of a farmer operator is 54.2 years compare to 48.2 years in 1991 (Statistics Canada, 2012b).

Most of the rural communities in Saskatchewan have a small economic base and declining population while the cities are experiencing growth in these two aspects. The government of Saskatchewan has been exploring various ways to support rural communities. One of the ways to support the rural communities is by creating off-farm employment for rural dwellers. In 2011, about 30% of the farm operators who are below the age of 35 are involved in off farm work for more than 40 hours a week (Statistics Canada, 2012b).

Furthermore, rural manufacturing has been identified as one of the few feasible sectors for rural development (Freshwater, 2003; Rothwell and Bollman, 2011). Based on this view, entrepreneurship tailored towards rural manufacturing may offer some opportunities in the rebuilding of rural Saskatchewan.

According to Petrin (1994), entrepreneurship has been observed to be a driving force for the sustainability of a sound economic environment as well as enhancing the quality of life of the rural populace. Henderson (2002) buttressed this claim by noting that entrepreneurship can serve as a means of creating local jobs, enhancing local income and as an instrument that connects a community to a larger economy.

The success of an entrepreneur in a specific location lies within the web of interrelated factors that are both general and specific in nature. Just as the entrepreneur is important in the development of a rural area, so is the community important in the survival of a rural entrepreneur

and the enterprise. According to Yu *et al.* (2011), the survival of a business depends on the stability and strong development of the local economy.

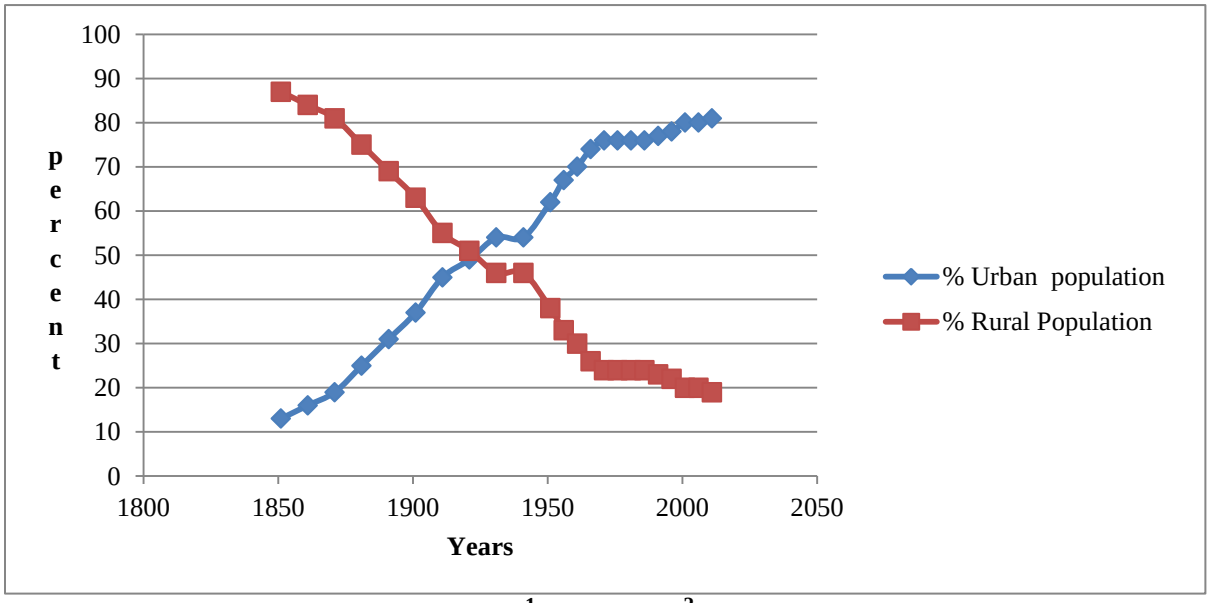

Figure 1:1 Percentage Share of Urban[1] and Rural[2] Population in Canada, Between 1850 and 2011.
(Source: Created by the author using Statistics Canada's data, 2012c).

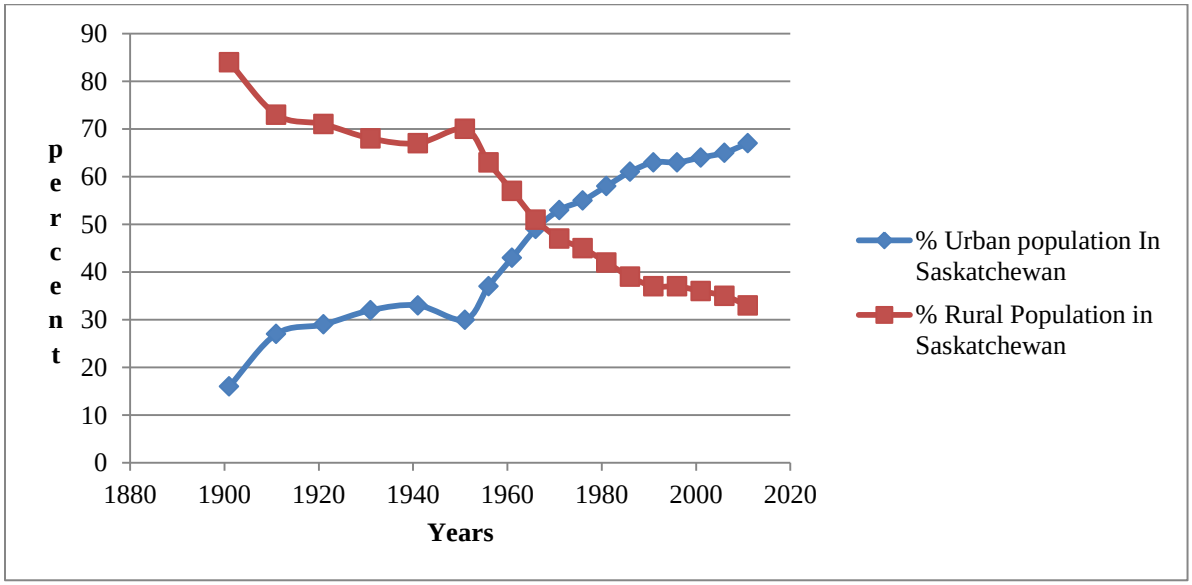

Figure 1:2 Percentage Share of Rural and Urban Population in Saskatchewan, Between 1901and 2011
(Source: Created by the author using Statistics Canada's data, 2012c).

[1] In general, "A population centre (urban area) is defined as an area with a population of at least 1,000 and a density of 400 or more persons per square kilometre" (Statistics Canada, 2011, p. 65).
[2] All areas outside the population centres are considered rural areas (Statistics Canada, 2011, p. 65).

1.2. Overview of Farm Mechanization in Saskatchewan

According to Champ (2002), the introduction of Fordson tractor in 1917 initiated the shift from horse power towards farm mechanization. Most of the initial machinery used in the Prairie region of Canada was manufactured and purchased outside the region from large full line manufacturers (Wetherell and Corbet, 1993). Most of this equipment, especially the tillage machine, was not well-suited for the prairie region agronomic conditions. In the 1930s, the Province of Saskatchewan endured some hard times during the Great Depression due to drought, low crop prices, insect and disease outbreaks, and wind erosion (Wetherell and Corbet, 1993). The cultivation of poor quality land with deep tillage equipment, coupled with the prevalence of drought, resulted in considerable ecological devastation, where wind created substantial dust storms. This devastating experience motivated prairie farmers and blacksmiths to develop equipment suitable for the region (Wetherell and Corbet, 1993).

Locally developed or modified equipment enabled farmers to "preserve a decent amount of trash cover" in order to protect the soil from wind and water erosion (McInnis, $2004_{a,}$ p.2). Most of the early innovators were farmers, who were able to combine their farming and manufacturing skills to solve agronomic problems. One of the most important innovations in Saskatchewan is the one-pass seeder invented by Jerome Bechard in 1969. This invention initiated the use of conservation tillage[3] in Saskatchewan (Awada, 2012).

According to Lindwall (2009), due to the assumption of small potential markets, large, main line manufacturers had little interest in manufacturing conservation tillage equipment. This lack of interest contributed to the initial slow development of conservation tillage equipment. It is the joint effort of innovative producers, a few short line[4] equipment manufacturers, government and university researchers that fostered the development and commercialization of conservation tillage equipment (Lindwall, 2009).

[3] Conservative tillage can be zero tillage, or reduced/minimum/mulch tillage (Mannering and Fenster, 1983). According to the Conservation Technology Information Center (CTIC), conservation tillage could be defined as; "any tillage or planting system in which at least 30% of the soil surface is covered by plant residue after planting to reduce water erosion, or where soil erosion by wind is the primary concern, with at least 1120 kg ha^{-1} flat small grain residue on the surface during the critical wind erosion period" (Abrol and Sharma, 2012, p. 242).

[4] A "Short line manufacturer means a manufacturer or distributor of agricultural equipment who may manufacture or distribute one type of mainline agricultural equipment" (Government of Saskatchewan, 1999, p. 3). (http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/A9-1.pdf)

The widespread adoption of conservation tillage technology has significantly transformed agriculture in western Canada over the past few decades. This technology has some economic benefits. In addition to reduced fuel consumption and lower labour requirements, farmers have been able to increase their cropping intensity and yield (Nagy and Gray, 2012). This extensive adoption has further enhanced the commercialization of this innovation in the Province as about 81 percent of Canada's cropland is under some form of conservation tillage with direct seeding (no-till) the most popular or predominant production system on the prairies (Statistics Canada, 2012b).

1.3. Agricultural Machinery Manufacturers in Saskatchewan

According to Saskatchewan Trade and Exporting Partnership (STEP), as of 2012, there are sixty two (62) agricultural equipment manufacturing plants in Saskatchewan, eighteen (18) are manufacturers of tillage and land preparation equipment and twelve (12) are manufacturers of seeding and planting implements[5].

In order to analyze the socio-economic factors influencing the longevity of rural business, a particular manufacturer, Bourgault Industries Limited, has been chosen for a case study. The choice of this company is based on three major observations. Firstly, this company is one of the leading manufacturers of specialized implements for zero and reduced tillage in Saskatchewan. Secondly, this company is the largest employer of labour in St. Brieux, which is a small town with population size of 590 (Statistics Canada, 2012a). Finally, this company has maintained the location of its corporate headquarters in St. Brieux since inception rather than relocating to a bigger city. Bourgault is also expanding its facilities in St. Brieux. In contrast, Morris Industries Limited, which is also a leading company in specialized equipment manufacturing, has relocated its corporate headquarters from Yorkton (a small city in the Saskatchewan context but it is urban than St. Brieux) to the major urban centre of Saskatoon. Based on the above, it will be important to investigate the factors influencing this company's ability to operate and grow in a small town.

[5] See appendix 1 for names, location and category of implement produced.

1.4. Problem Statement

Rationally, different industries locate their plants in such a way as to maximize profit. According to Hoover and Giarratani (1999), as the cost of transforming inputs into output (productions cost) is important to a firm, so is the cost of bring together inputs for the production process and the cost of distributing products to market. Location of industry in a region of cheap but quality labour can provide some cost savings as opposed to locating in a high labour cost region. Location of industry can be input oriented[6] or market oriented[7]. Industries can also be located close to each other in order to benefit from knowledge spill over, quality labour, and access to good infrastructure (Weber, 1929). Furthermore, some manufacturing plants are located in a particular place based on cultural, social or political ties[8].

Early researchers on industry location (Weber, 1929; Moses, 1958) and some more recent ones (Mai and Hwang, 1994; Mccann and Sheppard, 2003) have applied industrial location theory to analyze how and where industries locate their plants.

According to Hoover and Giarratani (1999), industrial location choice is a complex exercise and does not solely depend on transportation and production costs, but on a complex web of inputs, outputs and characteristics specific to different regions. They further note that the location of a firm is influenced by several economic pull factors, which can be likened to a "tug of war" (p. 12) and the factor with the strongest economic pull determines the final location.

Good transportation infrastructure plays an important role in the sustainability of an industry in a particular location by reducing cost in terms of transport costs for goods, commuting costs for staff and customers, and time cost (especially when Just-in-Time or a lean method is adopted) (Leitham *et al.*, 2000).

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[6] Location of industry is said to be input oriented if it is located close to the source of major cost saving transferable inputs. Industries that deal with mineable inputs such as mineral resources tend to locate their industries close to the input source especially if it is cheaper to transport outputs to the market than to manufacture them in a location close to the market. Such inputs experience physical weight and bulk loss after processing, while some inputs are too fragile to transport from one region to another (Hoover and Giarratani, 1999). Hence, it is less costly to transfer the finished product.

[7] On the other hand, industrial location is said to be output oriented when industry is located close to source of high market demand for products. This strategy is often adopted when output is highly perishable and loses its value with time; outputs that increase in size and weight after production are often market oriented in order to minimize transportation cost (Hoover and Giarratani, 1999). For instance a newspaper company will be located in a way that the newspapers will be distributed on time before losing its value.

[8] See Chapter three.

The intention of entrepreneurs needs to be considered in location theory, as personal factors tend to also affect the entrepreneur's location decisions (Dahl and Sorenson, 2007). Even though cost minimization is important in the location of an industry, the satisfaction derived by an entrepreneur or an investor in locating the industry in a particular site is also important when analyzing factors influencing industry location decisions. Entrepreneurs often establish their firms in the area in which they are well established, where they have access to loved ones, (Katona and Morgan, 1952; Mueller and Morgan, 1962; Dahl and Sorenson, 2012). However, for such entrepreneurs to be successful in their home regions, the regions have to be economically viable for business so as to protect the business from bankruptcy.

In Saskatchewan, while some farm implement manufacturers operate in the big cities, others are located in smaller towns (see appendix 1). The reasons for locating in rural environments differ among companies. While those in the cities take advantage of agglomeration economies, which gives them access to lower production costs, a wide range of labour (quality and quantity) and good public infrastructures, others remain in rural areas to take advantage of access to low cost land for future expansion, underemployed rural labour and social networks among friends and family. Yet the rural location can remain viable only if the businesses at least break even. Some minimal set of local conditions must be present if a business remains in a rural location for its production.

The purpose of this thesis is to provide answers to some basic questions: - why is Bourgault Industries Limited located in St. Brieux and what are factors contributing to its success in this location over the last 40 years? A good understanding of the factors that have enabled this company to operate successfully will provide additional information to the existing literature on location requirements for rural manufacturing family firms and possibly provide some policy recommendations for policy makers, especially if good public infrastructure is required.

1.5. Justification of the Study

According to Rothwell and Bollman (2011), the number of manufacturing firms in Canadian rural and small towns has declined by 7% between 2003 and 2007 and the rate of decline is more pronounced as one moves farther from cities. In addition, this reduction is more

pronounced in resource-dependent that in non-resource dependent communities (Rothwell and Bollman, 2011).

According to Stabler and Olfert (2002), there were approximately 2,800 manufacturing plants in Saskatchewan in 2002, with 18 communities in the top three trade status hierarchy (Primary Wholesale-Retail, Secondary Wholesale-Retail, Complete Shopping Center)[9] accounting for 85 percent of the plants. The remaining 15% were located in the lower trade status category. Several factors could have influenced the location of these plants, which could be rational or non-rational (accidental).

While some communities still maintain their trade status, there has been a significant decline in the population of most rural settlements in Saskatchewan, and most of these areas declined in the hierarchy of trade centre status between 1961 and 2001 (Stabler and Olfert, 2002).

St. Brieux is a rural community designated as minimum convenience center[10] trade status but has substantial number of people employed in manufacturing. Although the community experienced a decline in its trade status before the presence of the manufacturing plant, and while it has not been able to climb to the next trade status, it has been able to increase its population size (Stabler and Olfert, 2002).

Of the reference communities[11] in the minimum convenience center trade status, St. Brieux outperformed some of its comparable communities. It has experienced an increase in population size while some of its comparable communities with the same trade status have experienced a population decline. The town has been upgraded from being a village to a town in 2006 while some of its comparable communities still retain village status. Since Bourgault Industries Limited is the largest employer in this community, and has been able to operate successfully in

[9] Primary Wholesale-Retail (PWR), Secondary Wholesale-Retail (SWR) and Complete Shopping Centre (CSC) are the top three levels of hierarchy in trade center classification. There are two PWR centers in Saskatchewan Saskatoon and Regina, eight SWR centers and eight CSC. These centers are differentiated in terms of depth and variety of functions, hence PWR offers the greatest range of variety, quality and price. In ascending order, lower levels of hierarchy include Partial Shopping Center, Full Convenience Center and Minimum Convenience Center (Stabler and Olfert, 2002).

[10] A Minimum convenience centre is the least and functionally simplest trade centre that offers basic services such as a gas station, or a restaurant that require small-sized market area (Stabler and Olfert, 2002, p. 11)

[11] Reference communities include Dodsland, Holdfast, Manor and Rhein. Reference group adopted from (Stabler and Olfert, 2002).

this small town, it would be important to know the factors enhancing this company's success in this town.

1.6.Objectives of the Study

The broad objective of this study is to analyze the socio-economic factors influencing the longevity of a specific rural manufacturing business. The specific objectives are:

- To investigate and document the reason for establishing Bourgault Industries in St. Brieux;
- To investigate the factors influencing the continued success of the plant in St. Brieux such as:
    - Identifying the role of local infrastructure, transportation routes and appropriate quantity and quality of labour in success of rural manufacturing;
    - Identifying the role of social cohesion and family ties; and
    - Examining the influence of land and labour cost as well as proximity to larger centers in the success of rural manufacturing.

1.7. Organization of the Study

This thesis is composed of five chapters. Chapter 2 outlines the review of literature relating to the determinants of industrial location with a major emphasis on the role of public infrastructure. The concepts of entrepreneurship, social entrepreneurs and rural industrial location are explained by identifying the role of social capital in rural industrial location. In addition, a thorough review of family business will be presented, with a major emphasis on the role played by internal factors in the success of family business. Chapter 3 provides the theoretical framework upon which this study relies. This chapter presents five theories and their applications to this study. Analysis and application of location theory to industrial location as well as analysis of factors influencing location decisions are presented. X-inefficiency theory was applied to the concept of social entrepreneurship. The three remaining theories reviewed and analyzed are social capital, family capital and human capital. Chapter 4 presents a case study analyzing the factors influencing the longevity of Bourgault Industries Limited. Major emphases are on location factors and organizational strategies. Chapter 5 concludes the thesis with a

summary of the research outcomes and conclusions drawn from the case. Suggestions for future research and limitations of the study are also included in this final chapter.

CHAPTER 2: LITERATURE REVIEW

1.0. Introduction

This chapter provides a review of the literature on empirical and analytical outcomes regarding factors that influence industrial location decision. A special emphasis was placed on the importance of public infrastructure as a determinant of industrial location. This chapter also provides a thorough review of early and recent studies on entrepreneurship and industrial location. It emphasized the role of social capital used by social entrepreneurs in industrial location. A review of family business was done for a better understanding of how family business operates especially the different organizational strategies adopted. Different empirical and analytical case studies were reviewed in this chapter.

2.1.1. Determinants of Industrial Location

Location characteristics play a prominent role in the survival and success of industries (Yu *et al.,* (2011). Factors influencing survival of industries vary from urban regions to rural regions and from one manufacturing plant to another. According to Yu *et al.* (2011), the presence of some factors such as: 'knowledge spillovers across related firms and workers, an enormous customer base, easy access to information on new technologies, availability and access to skilled labour markets, proximity to suppliers, modern transportation facilities, telecommunication, and energy infrastructure' (p. 673) have fostered high entry of firms in urban areas. However, these characteristics may contribute to high input costs (Moretti 2004; Yu *et al.,* 2011). According to Reynolds *et al.* (1995), cited in Yu *et al.* (2011), due to low population, poor access to skilled labour, and to infrastructure, firm start-up in rural areas is limited.

According to Blair and Premus (1987), traditional industrial location factors such as access to markets, labour, transportation and raw materials are still important but to a lesser degree than in the past. Furthermore, these determining factors have been extended to take account of some other important factors such as taxes, attitude of the host community towards business and local physical infrastructure (Blair and Premus, 1987). In addition to these, access to substantial amount of labour, information and other material inputs are important for the successful operation of new firms in urban areas (Stearns *et al.,* 1995).

Holmes (1998), in a study on the effect of state policies on the location of manufacturing, while measuring policy in terms of right-to-work laws[12],also, examined the border areas between the pro-business and antibusiness states that are differentiated by this policy. It was assumed that a state is pro-business if it has the right-to-work law and antibusiness if it does not while holding other state characteristics constant. The author found evidence that manufacturing activities increase significantly when one crosses the boundary from an antibusiness state to a pro-business state.

Bartik (1985) applied a conditional logit model to examine factors influencing the business location decision. His results show that unionization and taxes have negative relationships with business location decisions. According to the author, unionization has a negative relationship with business location as a 10% increase in the percentage unionized of a state's labour force is estimated to cause a 35-45% reduction in the number of new businesses decision to locate in the study area.

According to the OECD report on rural entrepreneurship (2009), the tendency of rural areas to generate business enterprises depends on some unique features of the area such as: 'size of local markets; availability of business premises; transportation and communications infrastructure; access to information, advice and business services; access to finance and a supportive institutional environment' (p.5). According to Yu *et al.* (2011), information circulation and loan disbursement among remote markets in rural areas has made the presence of financial institutions an important determinant in industrial location decision in rural areas. Furthermore, the likelihood of a business surviving in a particular location depends on the area's debt level. According to Yu *et al*. (2011), the debt level of a community could be viewed as a measure of expected future tax commitment. A community with heavier tax commitments would increase production cost of local firms and, hence, may reduce the likelihood of survival (Yu *et al.*, 2011).

[12] Right-to-work law is a decree active in some states in the United States prohibiting the mandatory union membership among employees and their employers. This law has weakened the power of the labour union to mandate employers to collect union fees from their employees.

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2.1.2. Public Infrastructure and Industry Location

According to Martin and Roger (1995), public infrastructure can be interpreted as "any facility, good, or institution provided by a state which facilitates the juncture between production and consumption" (p. 336). It was further noted that, it is not only transportation and telecommunication that qualify as public infrastructure, but also, things like law and order, (Martin and Roger, 1995).

Public infrastructure plays an important role in business transactions. Improved infrastructure reduces both transportation and transaction costs while poor public infrastructure imposes costs on production and trade. According to Bougheas *et al.* (1999), apart from depending on geographical factors, cost is also expected to inversely depend on improved transport and telecommunications infrastructure and that there is a positive correlation between infrastructure and the volume of business transactions. To buttress this, Bartik (1985), notes that public infrastructure such as roads can attract new businesses. According to Freshwater (2000), cited in OECD (2009), a significant spreading out of potential market areas for rural businesses is as a result of reduced transportation cost and upgraded communication technologies. According to Henderson (2007), cited in Yu *et al*. (2011), as a result of a good transportation infrastructure, the average cost of production for firms will be reduced through reduced distribution cost and input procuring cost from distant markets.

According to Martin and Roger (1995), in a study that modeled different types of infrastructures and their impacts on trade patterns, firms experiencing increasing return are likely to be located in countries with the superior domestic infrastructure, so as to take advantage of economies of scale.

2.2. Entrepreneur, Entrepreneurship and Rural Areas

2.2.1. Early views on Entrepreneurship

The definitions of an entrepreneur are as varied as the number of books or articles relating to this subject. It is almost impossible to give a generalized definition of an entrepreneur. Different researchers of entrepreneur theory have explained entrepreneurship from different perspectives that tend to reflect their individual research. Hence, all their explanations are centered on early thoughts on this subject.

According to Filion (2011, p.42), the term 'entrepreneur' originated from the French word 'entreprendre' which means to undertake or to do. The history of entrepreneur can be traced back to Cantillon, Jean-Baptiste Say and Schumpeter (Filion, 2011). According to Ahmad and Seymour (2008), the phrasal context of what is viewed today as entrepreneurship was first coined in 1730 by a French economist, Richard Cantillon. According to Cantillon (1755), entrepreneurs were defined as risk takers. In a translation of Cantillon posthumous publication by Henry Higgs in 1959, Cantillon identified entrepreneurs as arbitragers whose aim is to make profit, faced with uncertainties. He exemplified them as people who bind themselves to pay a fixed price for a raw material or produce and resell in the market at an indeterminate price. According to Dees (1998), the term entrepreneur was coined as early as the 17th to the 18th centuries by another French economist, Jean Baptiste Say who puts the term in this way:
"The entrepreneur shifts economic resources out of an area of lower and into an area of higher productivity and greater yield" (Dees, 1998, p.1).

According to Hebert and Link (1989), in a review of the literature on early economists' views on who an entrepreneur is, the concept of entrepreneur unveiled by Schumpeter in 1934 identified an entrepreneur as a "person who innovates and makes new combinations in production" (p.44). According to Dees (1998), Schumpeter's type of entrepreneur is a change agent who boosts the economy of his/her region through innovations.

Entrepreneurs have been identified in the economic literature as playing several roles. Some of these roles include, decision maker, innovator, risk bearer, industrial leader, manager, contractor, arbitrageur, resource allocator, enterprise owner, organizer and coordinator (Hebert and Link, 1989, p. 41). After reviewing several sources in search for the meaning of entrepreneur, Hebert and Links (1989), defined entrepreneur as "Someone who specializes in taking responsibility for and making judgmental decisions that affects the location, the form, and the use of goods, resources or institutions" (p. 47). Hence, entrepreneurs play a significant role in industrial location choice.

An entrepreneur can also be someone who sees unexploited market opportunities as a means of making profit. Some entrepreneurs tend to repeat what has been done by someone else in a different location. According to Hamilton and Harper (1994, p.7), "theoretical entrepreneurs are omniscient, profit oriented, opportunistic and versatile". Based on all these views, it is

glaring that the word entrepreneur has a different meaning to different people and can be explained from different perspectives.

2.2.2 Sources of Entrepreneurs

Just as with other factors of production, sources of entrepreneurs can be explained from the supply and demand perspectives. Supply of, and demand for, entrepreneurs is dependent on several factors/conditions, which can be economical, socio-cultural, political, and psychological (Hamilton and Harper, 1994). It is often believed that the supply of entrepreneurs is economically motivated (such as unemployment, the zeal to make more money by taking advantage of the unexploited profitable opportunities), however, there are also non-economic factors linked to supply of entrepreneurs (Hamilton and Harper, 1994). Some entrepreneurs establish firms in order to have flexibility with their time, while others are motivated by the need for achievement. Hence, the source of the entrepreneur can be broadly classified as being both economic and non-economic (Hamilton and Harper, 1994).

Economic Perspective

Entrepreneurs are faced with various challenges before an idea is successfully commercialized. At the initial stage of commercialization, it is difficult for them to forecast what the future holds as they are faced with different types of risks and uncertainties.

Based on some of the definitions of entrepreneur reviewed above, an entrepreneur can be an individual who repeats an already commercialized idea in a different or similar location. Therefore, a profitable sector of an economy will continue to experience significant entry until the overall sectorial profit becomes zero and any entry beyond this point means a loss to the sector (Church and Ware, 2000).

Another economic factor that can motivate entrepreneurial behaviour is unemployment. An unemployed individual has close to zero opportunity cost and, hence, would be willing to take any form of risk and put in much effort to ensure the success of the venture. However, this statement may be vague as the reliability of this statement is entangled within the web of other locational characteristics such as skill levels of the labour force, economic growth and population density of the location (Storey, 1991; Audretsch and Keilbach, 2007).

Entrepreneurs can also arise through knowledge spillovers. Ideas gathered from different sources are put together to identify unexploited market opportunities. The successful commercialization of such ideas within a supportive institutional environment implies more income. According to Audretsch and Keilbach (2007), when analyzing the theory of knowledge spillovers on sources of entrepreneur opportunities, partially commercialized ideas developed in an established firm or organization are key sources of entrepreneurial behaviour.

Finally, some entrepreneurs also arise from the business sector in which they were formerly involved either as employer or employee (Oxenfeldt, 1943; Hamilton and Harper, 1994). These types of entrepreneurs are often termed spin-off entrepreneurs. They are well informed about the venture and decided to start up their own firm for a variety of reasons. Cabral and Wang (2009) developed a model of firm entry by spin-off in the U.S. automobile industry. They identified two types of spin-off entrepreneurs. The first type is those who are aware that they are good entrepreneurs and the second type are those who believe that their employer's prospects are poor.

Non-economic Perspective

This aspect captures socio-cultural, psychological, and political source of entrepreneurs. According to Hamilton and Harper (1994), economists have concentrated on the functions of an entrepreneur and have ignored the role of distinctive sets of personal qualities which play an important role in determining entrepreneurial types. According to Rahman and Rahman (2011), in a study that examined the factors that affect the shift in the history of entrepreneurship in Japan, the researchers' findings suggested that various attributes contribute to the supply of entrepreneurs among Latin-American immigrants to Japan. Some of the identified attributes are motivated by needs such as the need for achievement, need for power, need for affiliation, status need and security need.

In an attempt to analyze the psychological and sociological perspective of entrepreneurship, Hamilton and Harper (1994) recognized the pioneering role of McClelland (1961) in analyzing and identifying the psychological factors that drive entrepreneurial personalities. According to the authors, McClelland emphasized the need for achievement as a psychological driver for supplying entrepreneurs. He also identified the important role played by the child-rearing pattern in the development of a high drive for achievement.

Hamilton and Harper (1994) reviewed a book on the theory of social change by Hagen (1962). In this book, Hagen made a much more comprehensive analysis of both the social and psychological factors that drive entrepreneurial behaviour. According to them, Hagen argued that the removal of "status respect and social blockage" (Hamilton and Harper, 1994, p. 11) are important variables which trigger the supply of entrepreneurs, and that subordinated groups which are segregated from society and tend to produce more entrepreneurs. According to Hamilton and Harper (1994), social blockage makes individuals in these groups feel discriminated against and often triggers them to put in their best to achieve a successful business. This implies that individuals are "pushed" rather than "pulled" (Hamilton and Harper, 1994, p. 12) into entrepreneurship. Finally, the need for solving a prevailing problem is another factor that can trigger entrepreneurial behaviour in an individual. These problems could be ecological, socio-economical, environmental or agronomical.

2.2.3. Social Entrepreneurship and Rural Industrial Location

According to Austin et *al.* (2006), definitions of social entrepreneurship can be broad or narrow. The broad definition incorporates several economic and social elements while the narrow definition focuses more on social elements which are often non-profit in nature (Austin *et al.,* 2006).

> According to Dees (1998, p. 1), Social entrepreneurship is a phrase that combines the passion for a social mission with an image of business-like discipline, innovation and determination.

The author further notes that social entrepreneurs often mix "not-for-profit and for-profit" (p. 1) elements by providing service to their community and at the same time startup business enterprises in order to hire the local labour. In summary, social entrepreneurs incorporate social obligation into their business activities as they seek long-term social benefits on investment (Dees, 1998).

Entrepreneurs center their business location decisions on different factors, some of which have been explained in the above sections. Hence, the role of personal preference and social capital will be reviewed in detail in this section. Several studies have identified social capital as a possible assets of rural businesses, however, there is limited empirical evidence to support this is claim (OECD, 2009).

According to Estrin *et al.* (2013, p. 481), social capital is referred to as the "ability to access resources through social relationships". It is often challenging for people to leave a region where they are well established and relocate to another place. According to Beggs *et al.* (1996) cited in OECE (2009), strong ties are typical of rural communities, where dwellers rely on 'long-term and neighbour-centered relationships' (p. 112) when compared to their urban counterparts. Some entrepreneurs place more emphasis on being close to their loved ones than on location characteristics when making location decision (Dahl and Sorenson, 2009). Unlike human capital which is transferable from one location to another, social capital is not transferable once established and it takes time to build. Entrepreneurs with strong social ties to a particular jurisdiction can serve as an agent of change in the area.

Therefore, "individuals who approach a social problem with entrepreneurial spirit and business acumen" are referred to as social entrepreneurs (Barendsen and Gardner, (2004; p.1).

Social entrepreneurship plays an important role in the unity of a community as it enhances cooperative norms through joint societal activities important for the achievement of social objectives (Estrin *et al.,* 2013). The authors further note that social entrepreneurs strengthen the relationships among different stakeholders by connecting various social groups and, hence, alleviate social exclusion.

The tendency of an area to produce social entrepreneurs depends on the characteristics of the population such as level of enterprise culture development and the extent of social capital (OECD, 2009). Location of industry in a rural area depends on the culture of the rural populace. Communities whose culture embraces business enterprise tends to produce more entrepreneurs and are also supportive to any business organization within their communities.

Apart from staying close to family and friends, the problem being addressed is the main drive for social entrepreneurship (Austin *et al.,* 2006). These problems can be socially or economically related such as depopulation, unproductive economy and unemployment, and income instability. Social entrepreneurs combine their entrepreneurial, social and leadership skills to improve the welfare of the local populace. By locating their industries in their immediate community, social entrepreneurs also benefit from the institutional and social support provided by the community.

According to Dahl and Sorenson (2009), closeness to friends and family is valuable to entrepreneurs and is an important factor in location decision. Furthermore, this proximity may

also be beneficial to entrepreneurs as loved ones may assist them in recruiting capable hands needed for the successful operation of their firms. Also, plants located in the entrepreneurs' home region may experience long term survival and produce more yearly profit (Dahl and Sorenson, 2012; 2007). According to Yu *et al.* (2011), it was observed that the exit rate of firms from rural areas is lower than in urban areas. They attempted to find an answer to the question "why do rural firms live longer" in order to develop policies that could enhance rural entrepreneurial activity. The researchers identified the role of the higher level of social capital in the survival of a firm, because of stronger community support at the firm's start-up stage (Onyx and Bullen 2000; Yu *et al.*, 2011). Furthermore, local entrepreneurs often have access to inside information on a particular market or the region as a whole which are unknown to outsiders (Kirzner 1997; Yu *et al.*, 2011).

2.3. Family Business Reviews

After reviewing literature on what entrepreneur means, its source and its link with industrial location factors (external factors), it is also important to review what happens after an entrepreneur establishes a business. The success of a family business depends on both external and internal factors. This section provides a review of internal factors and how they influence family business. There is the need to shift from firm level viewpoints to family level in determining the longevity of family firms (Zellweger *et al.*, 2012).

According to Family Business News (2011), the ability to sustain the entrepreneurial spirit of the founding entrepreneurs has posed some challenges to the longevity of family businesses. This entrepreneurial spirit can be sustained through value-creating strategy across generations of the family firm as this is important in longevity and growth of the firm (Zellweger *et al.*, 2012).

Sharma and Nordqvist (2008), note that a smooth link between governance structure and family values is important to the longevity of family firms. Within a good governance structure, family values can be translated into corporate or business values through personal and professional attitudes (Tàpies and Fernández, 2010). In a study that applied a cross cultural analysis to examine the link between family values and longevity among family firms in Spain, Italy, France and Finland, Tàpies and Fernández (2010), listed some possible values that could explain this linkage. They include respect, quality, excellence, entrepreneurship, humility, hard

work, reputation, stewardship, social responsibility, accountability, prudence, loyalty, honesty and profitability. The authors note that entrepreneurial spirit, stewardship, loyalty and honesty were ranked high among the interviewees in Spain as values contributing most to their companies' longevity.

The authors further note in the overall analysis of all the countries that, of all these family values, quality, hard work and honesty have contributed most to a company's longevity (Tàpies and Fernández, 2010). Furthermore, to promote longevity, corporate values are important in strengthening the long-term perception, family cohesion and sustain profitability of a family business (Tàpies and Fernández, 2010). Apart from being an objective for most family firms, longevity is an asset that reinforces both families in business and family firms (Tàpies and Fernández, 2010).

Support from family and high status friends plays a significant role in determining the success or failure of an entrepreneur's venture (Barnes, 1988; Dyer and Handler, 1994). According to Dyer and Handler (1994), in a study that analyzed complex and changing relationships between entrepreneurship and family dynamics, entrance into family business often occur when an entrepreneur envisages retirement. Furthermore, family plays an important role in providing the necessary capital, financial and moral support at the initial stage of the venture (Dyer and Handler (1994). In a study on entrepreneurial experience, Dyer (1992) notes that because families were not encouraging, some prospective entrepreneurs were discouraged from establishing their own businesses.

According to Dyer and Handler (1994), the decision of an entrepreneur to employ or not to employ family members has a huge impact on the entrepreneur, the business and the family. A highly idiosyncratic family business will prefer to appoint the family's offspring to head its business even when such offspring is not competent for such a position except when the offspring is so ill qualified that the survival of the company can be in jeopardy (Lee *et al.*, 2003). The researchers further note that the appointment of family members as successors to a family business is rational rather than being nepotism as it can serve as a means of appropriating risk in the form of hold-up by external agents, especially if some idiosyncratic knowledge peculiar to the company is involved.

About 30 percent of first-generation family businesses remain under the control of the family during the second generation (Birley, 1986_a; Barnes, 1988; Kets de Vries, 1993; Lee *et*

al., 2003, Ward, 2004), while approximately 15 to 16 percent survive into the third generation (Morris, *et al.,* 1997; Lee *et al.,* 2003, Ward, 2004).

In summary, the innovative nature of a firm in creating new products, new marketing strategies, governance structures and family values across generations play a significant role in longevity and growth of family firms.

2.4. Summary

In this chapter, several factors have been identified as influencing industrial location. These factors include a large customer base, easy access to information on new technologies, availability and access to skilled labour size of markets, proximity to suppliers, and sophisticated transportation facilities, telecommunication, and energy infrastructure. Furthermore, these determining factors have been expanded to include some other important factors such as taxes, and attitude of host community towards business.

Good public infrastructure plays a major role in the location and survival of industries. Development of transport and telecommunications infrastructure is important in transportation and transaction cost reduction. Most firms preferred to be located in areas with well-developed public infrastructure in order to achieve economies of scale.

The term entrepreneur, coined by Jean Baptiste Say, means different things to different people. Early researchers such as Cantillon and Schumpeter have respectively defined an entrepreneur as a risk taker and an innovator. Recent researchers have built on these early concepts and have defined an entrepreneur as playing different roles depending on their research approaches. Some of these roles include, decision maker, innovator, risk bearer, industrial leader, manager, contractor, arbitrageur, resource allocator, enterprise owner, organizer and coordinator.

Just like other factors of production, demand and supply of entrepreneurs is influenced by several factors which are economic or non-economic in nature. Entrepreneurs keep exploring business opportunities in a particular sector as long as economic profit is positive. Hence, profit making is an incentive for entrepreneur's supply. Non-economic factors can be political, sociocultural or psychological. The need for achievement coupled with social discrimination within a community could motivate an individual to be outstanding in order to break into a desired social group and, hence, serve as an important driver for entrepreneur supply.

The aspect of entrepreneurship that combines both for-profit and not-for-profit elements to achieve a desired social changed is called social entrepreneurship. Furthermore, individuals who approach a social problem with an entrepreneurial spirit are called social entrepreneurs. They serve as change agents to achieve a particular social change. Some entrepreneurs prefer to establish the firm in a region where they are well established in order to stay close to their loved ones. These individuals use their social capital strengths within the community as tools to achieve their desired change. Industrial location could serve as a means of solving social problems and its success lies on the extent of social cooperation within the community.

Social cohesion and family ties between a social entrepreneur and the community is important for the location and survival of the industries within such a community. Support from family members and close friends together with the stability of the local economy are important to the survival of a firm.

CHAPTER 3: THEORETICAL FRAMEWORK

3.0. Introduction

This chapter will explain the theories that are relevant to this thesis. Five different theories will be examined in this chapter and they will be explained in relation to the start-up and longevity of family businesses. The first theory in this theoretical framework section is location theory. This theory will be used to analyze how entrepreneurs or business owners decide on their firms' location. The X-inefficiency theory will also be elaborated upon and identify some factors that would allow an entrepreneur not to maximize profit and thus pursue other objectives. The applicability of social capital, human capital and family capital theories will also be explained in detail.

3.1. Location Theory of the Firm

According to Erickson (1989), early location economists were mainly interested in the economics of transportation and the importance of transportation to industrial location. Just like the theory of the firm, location theory has the basic assumption of profit maximization. The general theory of locational factors explains the economic advantages to be obtained by locating an economic activity in a particular place (Reid, 1966).

According to Aguilar (2011), Ross (1896), was one of the early researchers that proposed a general location theory for geographic placing of industries. Ross (1896) cited in Aguilar (2011), emphasized that whole industries, as opposed to individual firms, select a location based on specific economic benefits and not on irrational or personal factors. Ross (1896), further identified factors that influence industrial location. These include, but are not limited to: the presence of natural deposits (which could serve as raw or auxiliary material for further production; input sources, if the inputs are bulky or heavy relative to their values); climate and soil type; and transportation cost.

This idea was further extended by Marshall (1920) who noted the concentration of industries in certain localities, which he termed 'localization of industries'. Marshall (1920) further identified some major factors underlying industrial localization such as 'physical conditions in the form of climate and soil type, and the existence of accessible mines and quarries (source of primary inputs) in the neighborhood of these areas' (p.154). Other identified

factors are the presence of a large pool of skilled labour, knowledge spillover, and also input-output linkages (Marshall, 1920; Aguilar, 2011).

Weber (1929) built on the ideas of earlier economists and developed what became the traditional industrial location theory, or the least cost location theory. Weber's (1929) analytical framework on industrial location theory emphasized the role played by transportation costs[13], labour costs, (primary/regional sector) and agglomeration[14] and de-glomeration (secondary factors) in industrial location theory. Weber (1929) based his analysis on some assumptions which include; fixed raw material location, one product is produced at a time, labour is immobile, transportation cost is a function of weight of the product and shipping distance and the firm operates in a perfect competitive market. Weber (1929) explained his analysis using a triangular location model with input sources located at two different points (B and C), and one product market located on the third point of the triangle (A) (see figure 3.1a and b). Weber (1929) noted that an industry will move to the point where its transportation cost is minimized. Furthermore, optimum location depends on distance, transportation cost of moving materials[15] over a unit of distance, and the weight of intermediate or raw products and finished products to be conveyed. He explained two scenarios in relation to this framework. Firstly, the weight-losing case, which explains that industries should be located close to the heaviest or weight-losing inputs during the process of production. Hence, the location determinant in this scenario is input oriented. Secondly, he describes the weight-gaining case, where, if the final product is heavier or bulkier than the raw materials, industries should be located close to market rather than an input site. Hence, the location determinant in this scenario is market oriented.

Below (see figures 3.1a, 3.1b and 3.2) is a diagrammatic expression of how different economic factors (input orientation and market orientation) pull industries to locate in a particular place in a way that transportation cost is reduced. Consider a triangular space with one market (A) and two production inputs (B and C). In figure 3.1a, input B has more economic weight than input C and output A to pull the industry towards D. Figure 3.1b shows a similar

[13] Transportation cost depends on the distance covered as well as the weight of the input or output.

[14] Agglomeration – this term is attributed to Alfred Marshall who explained this phenomenon in the late 19th century. He stressed that industries that are located next to one another are more productive than those that operate separately (Marshall, 1890)

[15] Weber classified materials into two, the ubiquitous and the localized. Ubiquitous are materials found everywhere while localized are found is certain areas and are further divided into pure (materials that do not lose weight with production) and gross materials.

scenario, but with input C. In figure 3.2, the product market is the major economic factor that has the adequate weight to pull an industry to locate towards D.

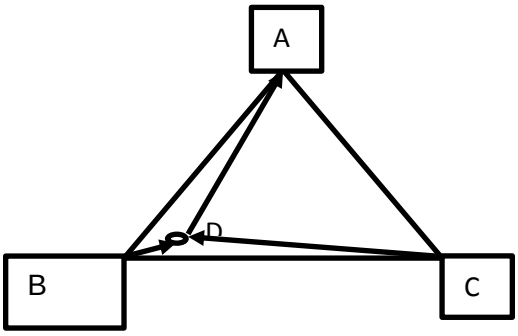

Figure 3:1a Location According to Input Pulls
(Source: Author, 2014)

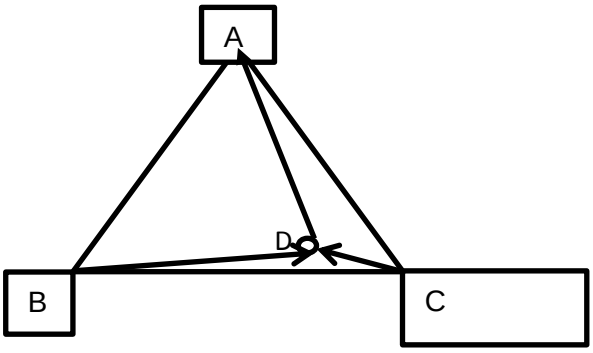

Figure 3:1b Location According to Input Pull
(Source: Author, 2014)

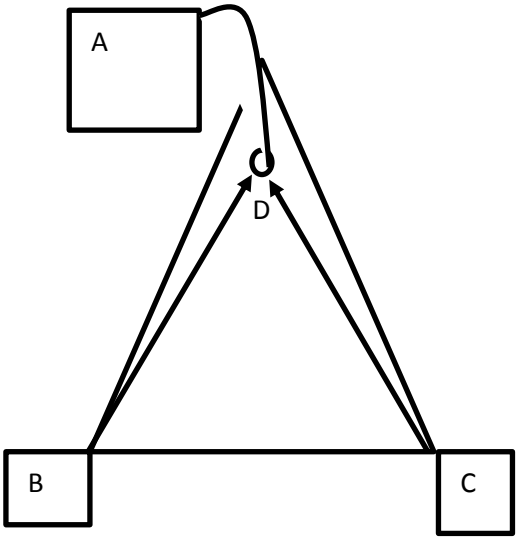

Figure 3:2 Location According to Market Pull

(Source: Author, 2014)

To determine the suitable location that would minimize transportation cost in terms of weight- gain and weight-losing, Weber (1929) used the material index formula, which is the ratio of the weight localized material to the weight of finished product. When the material index is greater than 1, it implies that the industry should be located close to the source of raw material while a material index of less than 1 implies that the industry should be located closer to the consumption site or product market. Furthermore, equal economic weights from all the three

factors (A, B and C) will pull the location to a centralized area within the triangular space (See figure 3.3)

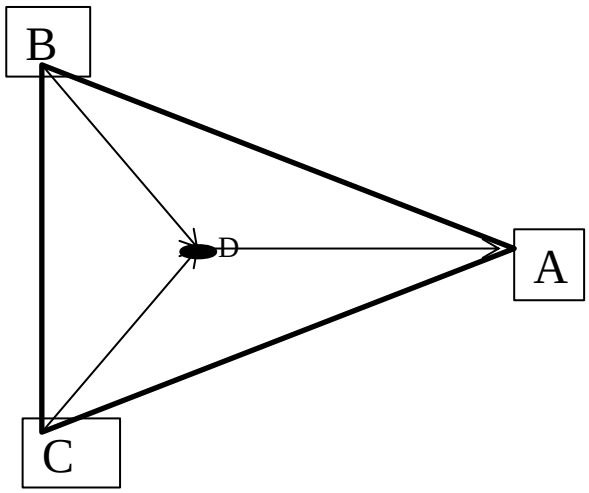

Figure 3:3 Location Resulting from Equal Economic Pull
(Source: Author, 2014)

Weber further noted that labour costs vary from point to point and that the benefits from reduced transportation cost when an industry is either located near the market or other input sources can be offset by labour cost if savings on labour costs in a particular location can justify greater transportation distance. He used the labour coefficient[16] to determine the attractive power of labour in the location decision. A higher labour coefficient implies that an industry is likely to be located close to the source of cheap labour supply.

He explained agglomeration economies as the benefits derive from concentration or clustering of related firms in a particular location. In addition, cost is minimized through the economic advantages derived from the interdependent relationship among the concentrated firms and support services. De-glomeration on the other hand can also influence the location decision. Weber (1929) explained de-glomeration as a situation where companies and other services leave a particular place because of over concentration which has led to shortages of labour, shortages of affordable land and competition for capital. He further stressed that industrial location varies

[16] Labour coefficient is the ratio of labour cost index to locational weight. Labour cost index is proportion of labour cost to the weight of finished product while locational weight is the cost of transported inputs during the production process.

from one industry to another. For instance, companies with specialized equipment used only occasionally are often located in areas where firms are concentrated in order to find sufficient customers. Therefore, industrial location depends on pull by several economic factors.

Weberian location theory was not without criticism. Logan (1966) notes that Weberian theory fails to recognize spatial monopoly, interdependence among competing firms and the effect of demand on location choice. In an attempt to correct the biases in Weber's industrial location theory, a number of economists have analyzed a wide range of economic problems by synthesizing location theory with different economic theories.

Isard (1956) extended Weber's analysis and proposed a general theory of location and space economy. The author stressed that space economy is not as continuous as Weber assumed, and that continuity of transportation can be distorted by varying 'transport rates, topography, and transshipment points' (Reid, 1966, p.27). He further emphasized Weber's omission of some minor but distinct economic variables by narrowing his variables to unit of weight and distance. Isard (1956), also introduced the concept of substitution (spatial substitution) as found in production theory

Moses (1958) integrated general production theory with location theory by emphasizing that inputs may be substituted for one another. He investigated the implications of factor substitution for the locational equilibrium of the firm and concluded that an appropriate adjustment of output, input combination, location, as well as price is important in order to achieve maximum profit. The introduction of factor substitution altered the condition for optimal location, emphasizing that there is no single optimal location and that firms can be located at any point along the arc I-J where output is A and the two inputs are B and C (see figure 3.4) depending on their levels of output and input combination.

Logan (1966) discussed the theoretical and empirical rationale behind decision-making behaviour of a manufacturing industry in Australia's urban areas. The author identified weaknesses in the traditional location theory, one being that it fails to take into account the changes that occur with scale of production.

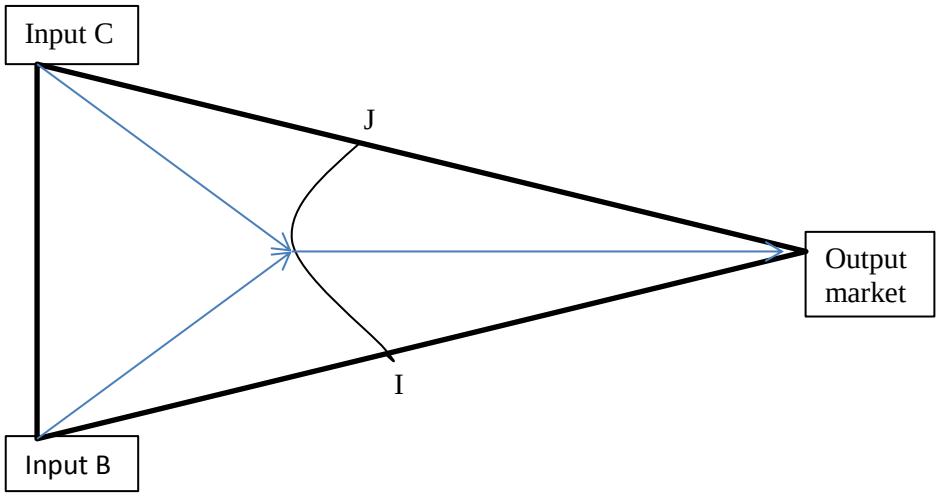

Figure 3:4 Moses-Weber Location Triangle.
(Source: Moses, 1958)

Other empirical studies on location decisions have highlighted different location decision factors. While some firms locate their business to establish and maintain competitive advantages (Porter, 2000; Mazzarol and Choo, 2003), others locate theirs for idiosyncratic reasons. Competitive advantages can be monetary or nonmonetary in nature, such as 'an increase in production capacity, additional profit, business expansion, better service to customers, and increase in stockholders' wealth, cost reduction, and decrease in manufacturing lead time' (Jungthirapanich and Benjamin, 1995; Mazzarol and Choo, 2003, p. 191). Badri (2007) identified generally critical factors of industrial location that offer firms competitive advantages such as transportation, labour, raw materials, markets, industrial sites, utilities, government attitude, tax structure, climate, and community. An example of the idiosyncratic reasons is closeness to family members. According to Mazzarol and Choo (2003), in a study on location decisions of small firms, it was noted that the owners of small firms are often motivated by personal issues and would prefer to locate their firms close to their homes.

In conclusion, Jungthirapanich and Benjamin (1995) developed a hierarchy of location factors and associated metrics that were relevant to locating a manufacturing facility in the US. These factors summarize the basic requirements for consideration in establishing any manufacturing plant. A summary of these factors is presented below

Table 3.1 Location Determinants for Manufacturing Firms in the U.S.

Factors	Metric
1. Market	Proximity to the market Local consumers' purchasing power
2. Transportation	Land transportation Water transportation Air transportation
3. Labour	Availability of general employee Availability of engineering and science employees Labour unionization Work stoppages
4. Site consideration	Cost of land Cost of plant construction
5. Raw material and services	Availability of raw material Availability of business services
6. Utility	Energy generating capacity Energy cost Fuel availability Water availability
7. Government concerns	Federal aids to local government Government debts Taxes State support for employment training
8. Community Environment	Housing availability Education Health and medical consideration Human services Security Environmental consideration Cost of living Business climate Physical climate

Sources: (Jungthirapanich and Benjamin, 1995: p. 790; Mazzarol and Choo, 2003: p. 192)

3.1.1. Analysis of Location Factors Influencing Decision Making

Location decisions are governed by different factors. Decisions on locating a business unit are made by the firm's management team or the entrepreneur who conceives the idea. According to Chan (2011), location-determining factors range from technological/infrastructural to political to social and economic factors. Location factors influence decision making in ways that vary from one location unit to another. For residential apartments, while some people want

to live in a place that would boost their social status even if it is expensive, others would consider their financial capacity before renting or buying an apartment. Most of the decisions on location choice are made in the face of uncertainty. In the long run, there could be changes in the relative advantages of attracting a location unit to a particular location choice.

When a business firm is satisfied with a particular location where it makes a reasonable amount of profit rather than finding the best location to make maximum profit, then some other forces are at work other than the economic interest of the firm (Hoover and Giarrantani, 1999). Hence, personal preference of the individual decision maker or decision making unit could rationally influence location choice. According to Hoover and Giarrantani (1999), in a statistical inquiry on reasons for business location, personal consideration was reported as the most noticeable factor among small and newly established firms. Weights attached to all these factors by different location players and how they vary spatially among firms are explained in the subsequent subsections of this chapter.

Infrastructural Factors

The infrastructural factor refers to the physical facilities that support the location of a firm. Infrastructural facilities (such as telecommunication, highways, railroad, airport, power supply etc.) provide the necessary physical support for industrial location (Chan, 2011). These basic features provide the minimum requirements that could support any firm. For any firm to consider locating in a particular place, good infrastructural support must be in place, as this assists in cost reduction. For instance, accessible highways would support transferring of inputs and outputs to and from a manufacturing plant, thereby reducing shipping cost (Chan, 2011) and repair of transporting vehicles due to wear and tear. This also allows easy movement of workers, particularly if such a firm is remotely located. Good telecommunication facilities also reduce information or search cost, monitoring and negotiating cost. With the internet and telephones, firms may not have to travel or meet face to face before transactions are made.

Apart from business organizations, residential location is also influenced by these basic facilities. In Saskatchewan, railroads played an important role in settling immigrants and most of the settlements can be easily traced to intervals along the rail line (similar to illustration in Chan, 2011).

Political Factors

Location decisions are also governed by political factors. Some political office holders may locate government owned facilities in a particular region in order to enhance their political strength in such a region, even if it runs counter to the template specified by location theory. The reason why public decisions are sometimes made without applying location theory is because some of the services provided by the government are intended not to make a profit, but instead to provide a public good (Chan, 2011).

Politicians may place their political careers ahead of rational economic decision making. For instance, politicians may approve economic development projects in places with greater population size in order to enhance their political standing. While some political office holders do it for personal reasons, others do it for the betterment of their communities. Some governments provide institutional supports in the form of economic incentives to attract private investors. Institutional support can be in the form of policies such as responsible fiscal policy and transaction cost reducing legal institutions. Tax incentives can attract firms to locate in a particular region. Laws that could prevent or weaken unionization among workers have also been identified as an attracting force for industrial location. In addition, environmental regulations influence location of industry in some regions, as some governments may decide to encourage location of manufacturing plants at the outskirts of a town for reasons such as concerns regarding pollution.

Economic Factors

According to location theory, economic factors are an important consideration when the location decision is to be made for a profit making venture. The profit function shows how profit can be determined with respect to cost and revenue. However, the location of a business unit plays a significant role in determining the costs and revenues of a production firm. Hence, with proper adherence to location theory, firms tend to maximize their profits. For a firm to maximize profit, a strategic commitment has to be made in terms of the location decision. This strategic commitment is most often made at the firm's inception, as relocation costs may be high and may even erode the promising high returns expected from relocating (Hoover and Giarranti, 1999). In

order to make such a commitment, entrepreneurs or management may consider factors that will strengthen the long term goals of the firm.

Determining the best location for a firm is almost an impossible task as it lies within a web of complexity. According to Hoover and Giarrantani (1999), proper evaluation of the relative benefits of all possible locations is an undertaking beyond small and medium firms. Probable revenues and costs at various locations need to be considered before a 'best' location is selected (Hoover and Giarranti, 1999).

Location decisions are often governed by different economic incentives, some of which are related to factors of production (land, labour and capital). Even though some inputs are ubiquitous in nature (inputs that are similar at any quantity anywhere and has no affect in deciding the location choice such as federal tax rates, etc.), factors of production vary spatially, with some factors exhibiting uniformity within a specific region and others differing greatly (Hoover and Giarranti, 1999). Even though land as a factor of production is assumed to be uniform, it varies in mineral resources as well as topography. Based on this, there is spatial variation of production inputs from one region to another. For instance, the value of land, wage rates and supply of capital input are not likely to be uniform between regions, with the exception of government regulated rates within a country or jurisdiction (Hoover and Giarranti, 1999). According to Henderson (1997), cited in Denis-Jacobs (2012), de-glomeration effect has fostered the out-migration of some economic activities from metropolitan areas to small urban areas in order to take advantage of more affordable land and labour. However, factors of production may be affordable but not efficient. For instance, labour may be cheaper in Lanigan than it is in Melfort, however, the labour in Melfort may be more productive than in Lanigan which may, in turn, end up yielding the same labour cost (similar to an analogy in Hoover and Giarranti, 1999).

According to Hoover and Giarranti (1999), economies of scale enable some producers to produce more outputs than one market can absorb and therefore they desire to sell the excess in other markets. Based on this, the location decision is influenced by access to market and will require proximity to more than to one market area. The demand curves faced by the producer in each market ranges from inelastic to elastic as we move farther away from the producer's location (Hoover and Giarranti, 1999).

Finally, the location of a firm also depends on the position of the firm in the supply chain hierarchy. For instance, most primary producers are likely to be located close to the source of their most weighty input, especially if such an input loses weight with processing.

Social-cultural Factors

Emotion is an important instrument in the decision making process. Some entrepreneurs place more value on staying close to friends and families. This is common at the startup of most family firms. While some entrepreneurs locate their firms to create jobs for their community members, others locate in their community in order to maintain social status and garner respect.

3.2. X-inefficiency Theory of the Firm

While some firms choose location on the basis of profit maximization, other firms choose location that maximizes their utility. Behavioural theory of a firm explains how different firms have pursued goals other than profit maximization. The theory emphasizes that when a substantial amount of profit has been made, (or can be made) firms can prioritize attainment of other goals. In this case, firms may be inefficient when selecting location for their firm and may not be minimizing cost as analyzed from the standpoint of location theory. In order to do this successfully, they must have the opportunity to earn sustainable supernormal profits.

Under the assumptions of neoclassical microeconomic theory, firms tend to minimize cost regardless of the market structure in which they operate (Leibenstein, 1975). In an attempt to correct the over-generalization in economic theory's assumption that firms behave efficiently by maximizing profit or minimizing cost, the X-inefficiency theory of a firm explains the firm from an unconventional perspective. Firms will not maximize profit or minimize cost unless an internal or external pressure is being applied. Hence, X-inefficiency shows the difference between the efficient behavior of firms assumed by neoclassical economic theory and the actual behavior displayed by firms (Leibeinstein, 1975).

X-Inefficiency differs from the conventional theory in that the basic micro unit is the individual, and that the analysis is based on individual motivations and interactions with one another (Leibenstein, 1975).

According to Leibenstein (1975), the degree of X-inefficiency is the "difference between maximal effectiveness of utilization and actual utilization" (p. 582) of inputs or factors of production. Leibenstein continues with the hypothesis that "neither firms, nor individuals, nor industries are as productive as they could be except when under competitive pressure" (p. 582). In this theory, the conventional economic theory assumption of maximum or optimum behavior among economic agents was replaced with a set of psychological assumptions that represent some components of human personalities and how they influence the supply of effort. This was achieved by analyzing the firm as a body that organizes humans to supply effort, rather than a body which makes decisions based on the demand function, the methods of production, and the cost function. The concept of "selective rationality" was applied to develop a set of psychological assumptions which proposes that "individuals behave neither "fully rationally", nor "irrationally," but choose some degree of rationality" (Leibenstein, 1975, p. 582). To understand how individuals interact with their environment, a vector of traits needs to be examined. In an attempt to explain the components of the trait vector, Leibenstein adopts the term "constraint concern" (p. 583) to capture the degree to which an individual will acquiesce to the prevailing constraints or obligations. This theory recognizes effort as an important discretionary variable in decision making, and that the variability of the effort impacts an individual's utility when it deviates from an individual's desired level.

Both X-inefficiency and allocative inefficiency can exist in the absence of a strong competitive pressure (Altman, 2007). Hence, the effect of allocative inefficiency is trivial when specific firms or industries are analyzed in light of X-inefficiency (Leibenstein, 1966).

The theory recognizes the role of market power in the lackadaisical behavior of firms acting inefficiently as long as an above normal profit can be earned. Furthermore, it is not restricted to the monopoly power exhibited by various firms, but also to oligopolistic power among a few firms producing similar but not homogeneous products. The large setup capital needed to start-up some businesses has made entry into such businesses difficult, creating room for the few incumbent firms to make supernormal profits and exhibit some level of market power.

This theory has been the subject of considerable criticism (Stigler, 1976; De Aless, 1983). De Aless (1983) notes that the theory focuses on some variables that were unable to produce testable hypothesis and it also fails to take into account the structure of property rights. In

addition, Ashton (1987) notes the static nature of the X-inefficiency theory because it ignores changes in production and consumers demand functions, which are of paramount importance in a dynamic environment. Ashton (1987) identified some real world external factors such as potential entrants, overseas competition and consumer demand (changes in taste) as important factors influencing the degree of efficiency. These factors would stir the internal drive of a firm and make them act almost efficiently in the product market. He further stressed that consumers' tastes are changing and technological advancement has made market power a short term benefit rather than a long term benefit. In addition, a multinational firm would not be a good competitor if they relied on initial innovation without moving with the flow of change in consumers' taste especially when a higher proportion of the company's products are sold in the international market.

Leibenstein, (1975) notes that an individual would neither want to move from a point of inertia nor supply maximum effort unless they are being motivated or threatened with punishment. Ashton (1987) argued this by recognizing the degree of labour elasticity in a specific area. The level of unemployment within a nation or region influences the amount of effort workers put into their jobs. Employees in a region of high unemployment would put in their best and be productive in order to protect their job as compared to regions of low unemployment (Ashton, 1987).

Apart from external forces, there are some forces within organizations that spur them to be efficient. Different firms have put in place different organizational strategies in a way that minimizes cost. Firms do everything within their capacity to minimize production cost so that they can sell their products at a competitive price, especially in the international market (Ashton, 1987). The just-in-time[17] inventory control method has been adopted by most manufacturing industries. This method has contributed to cost efficiency among industries, as industries wait for an order to be placed for their product before initiating inventory supply. This method would prevent funds from being tied down and would create space for other, inputs thereby smoothing the flow of production inventories.

[17] Just-in-time inventory is strategy adopted by companies in order to improve their efficiency. It entails purchasing inventories only when they are needed during the production process rather than stocking inventories.

In order to reduce transaction and agency cost[18], some firms give their employees opportunity to purchase part of the company's shares. This has been put in place to serve as a productivity incentive, as the employee would put in more effort when they see themselves as part owners of the firm with a claim to a portion of profits.

3.2.1 Self-motivating Social Entrepreneur

According to Leibestein (1975), in X-inefficiency theory it is assumed that individuals prefer to behave as if they had no sense of obligation and remain at their state of inertia. They would not want to change position except when pressure[19] is being exerted. Figure 3.5 shows four utility indifference curves (U) ranging from the lowest level (U_4) of utility to the highest (U_1) as one moves near the origin. These curves are also called the desire curves as they show the desired utility level of different individuals. For instance, individuals on indifference curve U_4 have low intensity to pursue specific goals as they are being less pressurized and less purposive. The higher successive desire curves (U) imply higher effort position which implies that such an entrepreneur has a higher intensity to pursue any given goal. Along the slope each desire curve is the tradeoff between being purposive and being pressurized externally. A purposive individual performs the right activities without being externally pressurized. However, this is just one aspect of individual's personality. Facing the opposite direction is the iso-utility curve called the standards curves (S). The other curves facing the opposite direction reflect the internalized standards an individual is subjected to and the standards imposed upon them by others. These internalized standards impose some sense of duty and obligation on an individual. These curves indicate the individual's preference to be highly purposive and responsive to positive standards set externally (Leibestein 1975). The curves imply higher utility as we move away from the origin. Just like the desire curve, the slope of each standard curve indicates the willingness to tradeoff more pressure for less purposiveness and vice versa.

[18] Agency cost is an internal cost incurred by a principal (employer or organization) when an employed agent meant to perform some duties act differently from the principal's stipulated duties. The cost increases as the conflict of interest increases between the principal and the agent.

[19] Pressure may take a variety of forms and in this context of the social entrepreneur, pressure is an additional cost of production and distribution.

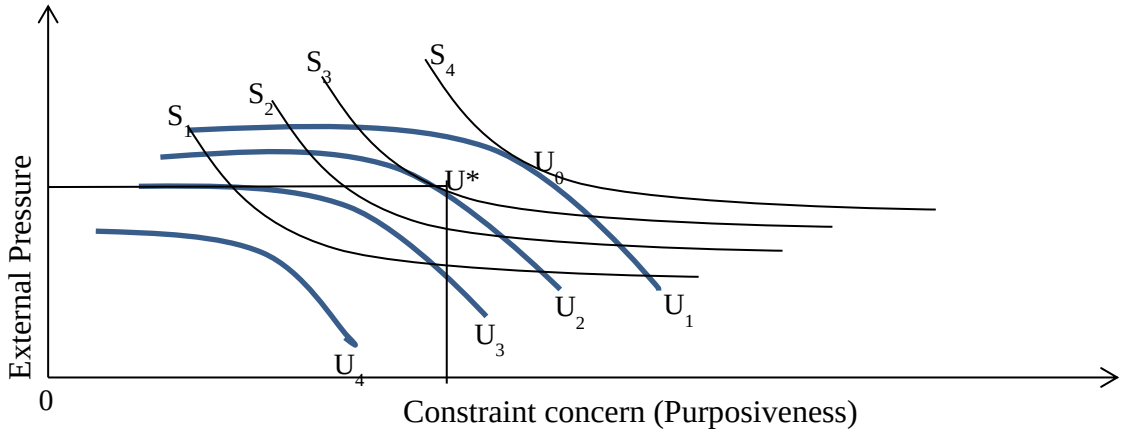

Figure 3:5 Representation of an Individual's Psychological State
(Source: Leibenstein, 1975, p. 584)

The same degree of utility is attained at the tangency point between the desire curve (U_2) and the standard curve (S_3), this tangency point results in compromise behavioural point U^*. This curve represents a compromise between an entrepreneur's vision of himself as a person who meets internal and external standards. However, this point of tangency does not mean that the social entrepreneur is acting optimally according to neoclassical economic theory, but such an entrepreneur is at the point where his\her utility gain from moving from a state of inertia to a new effort position is equal to his/her utility cost of making such movement. If a social entrepreneur moves beyond this point to a more optimizing compromise behavioural curve U_0, more profit could have been maximized, however, utility may not be maximized. Social entrepreneurs often trade off profit maximization for utility maximization, they pursue other goals once a reasonable amount of profit is achieved. They derive satisfaction in solving social problems rather than concentrating more on financial gains.

According to Ashton (1987), there are different effort levels throughout the hierarchy of an organization and there are various market forces at work in the real world that influence the degree of inefficiency that can be tolerated by a firm with market power. At the start of most businesses, entrepreneurs are often self-motivated and exhibit some form of internal pressure, which makes them more constraint concerned (purposive) and act irrespective of pressure from external sources.

The intensity to pursue goals varies from one entrepreneur to another. While commercial entrepreneurs strive to make more profit, social entrepreneurs strive to solve a prevailing social problem with an entrepreneurial spirit. Most social entrepreneurs are self-motivated with a high intensity to pursue goals even at the expense of maximizing profit. The internal pressure propels the social entrepreneurs to act competitively and actively pursue the goal of solving prevailing social problems.

In order for a social entrepreneur to solve a social problem, it is important for the entrepreneur's firm to succeed. Furthermore, the success of the business depends on some standard location factors. Social entrepreneurs consider standard location requirements at a desired level in their planning process. In addition to this, social entrepreneurs are satisfied once the desired amount of profit is achieved. Hence, this desired level in both cases, is the point where the desire curve is tangential to the standard curve.

3.2.2. Factors Shielding Social Entrepreneurs from Strong External Pressure

A. Market Power

Market power enables a firm to set a price above marginal cost and determine the output quantity that enables a firm to potentially make supernormal profits. Unlike the perfectly competitive market structure where quantity and price are determined by market forces of supply and demand, in an imperfectly competitive market, the management of individual firms determines quantity and price. The extreme market form that exhibits these characteristics is the monopoly market structure. This is a market situation where only one producer produces a particular product within a particular region at a specific time.

Most manufacturing firms operate under the oligopolistic market form. In this type of market situation, market concentration is high where a few large firms dominate the market and produce differentiated products. The products may be homogenous or heterogeneous in nature. Homogeneous products are identical products produced by different firms, while heterogonous products are differentiated products produced by different firms. Some factors highlighted below contribute to the extent of market power exhibited by firms operating in this market structure.

Property Rights

Based on Ashton's assertion (1987), innovations would only give an entrepreneur short term market power. In order to remain in a market, an entrepreneur would put in more effort to

discover a new thing that would be in line with the consumers' tastes. These innovations give an entrepreneur some level of short term market power as no other competing firm can produce that same product. This study will adopt Ashton's scenario on market power cycle in analyzing longevity of an innovation. The author adopted the concept of a production cycle to analyze the life span of a product. This has been divided into four stages (see figure 3.6). During the first stage, the firm introducing the product is incurring some losses as some investments must be made before developing a new innovation that would be suitable for the consumer. A substantial amount of money would be spent on research and development and other set up costs. In order to commercialize the new innovation, some investments would be made into advertisement so as to create awareness among the intended consumers. At the growth stage, firms are making profit, but at the same time are under pressure to recover losses incurred in the first stage especially when the product was being financed by loan capital. At the maturity stage, we can say the company has market power and may exhibit some level of X-inefficiency. At this stage the firm has fully recovered from their losses and can convert their monopoly power into cash flow (Ashton, 1987). At the last stage of the cycle (decline stage), profitability declines due to low demand for the product. The low demand for the product at the last stage is as a result of the change in consumers' taste and the development of a newer product making the previous one obsolete. Hence, it takes continuous discovery of innovations and also the discovery of new markets to keep a company in business.

Reputation and Brand Loyalty

Longevity of a company can build reputation and brand loyalty. An experienced social entrepreneur, over time, may gain a positive reputation which can translate into a measure of market power. A reputable company sells their products based on management decisions and not on forces of demand and supply. This degree of market power would subject a company to less pressure than there ought to be when a new player comes into the market. Hence, longevity can play an important role in the degree of competitive pressure experienced by companies.

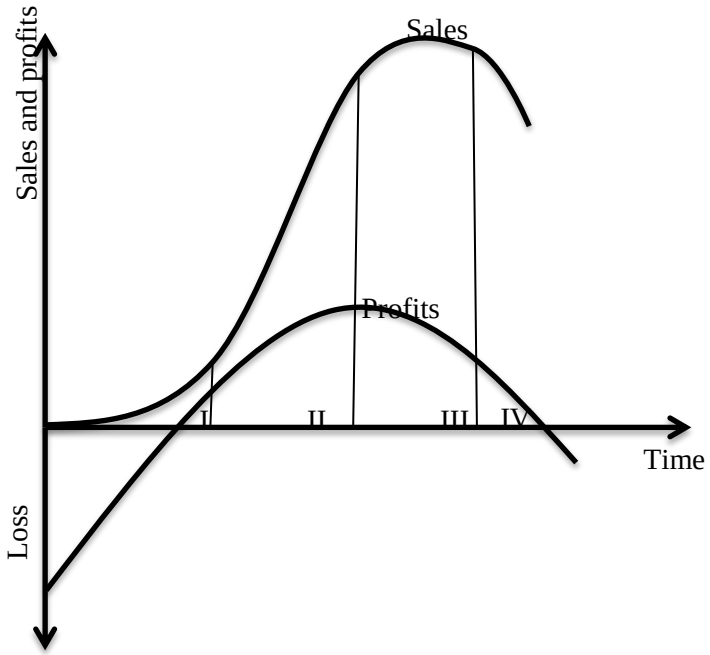

Figure 3.6 I. Introduction II Growth III Maturity IV Decline

(Source: Ashton, 1987, p. 334)

Economies of Scale and Scope

Due to large setup cost, firms with market power often have constant marginal cost. They involve themselves in a huge one time investment which spreads the cost over time and quantity while allowing them to benefit from these economies of scale. Economies of scale is an economic concept that explains how production cost of an additional unit of output decreases as the volume of output increases. For instance, investment on research to develop a particular product is a onetime investment and the outcome can be used to produce several products. Furthermore, large industries also take advantage of economies of scope by making use of one input to produce more than one product. For instance, in an automobile manufacturing plant, the same equipment used in welding one model can be used in welding during the production of another model. This analogy applies to other production inputs used in a production process.

B. Institutional Support

The role of this factor varies among tiers of government (federal, state and local governing units). Laws and regulations (for instance tax laws) may either enhance or limit a

business and the business achievements also depend on the nature of the regulations (Danes and Brewton, 2012). Companies that are well supported by the government tend to be subjected to less market pressure. Institutional support from government shields firms to an extent from external pressure. For instance, a government supported firm may have the luxury of being the sole provider of a particular good or service, with government preventing other players from entry into the sector. Furthermore, social entrepreneurs often get support from their immediate government to encourage them in solving a social problem. Institutional support can influence cost reduction in the form of reduced taxes, provision of basic infrastructure to lower a variety of costs and other supporting policies.

A social entrepreneur may have all the necessary supports, market power and even allocate resources efficiently, but may still not make maximum profit, especially if the firm or organization is not well located. When emotions become an instrument in location decision, it is unlikely that profit is being maximized. According to the figure below (Figure 3.7), when a firm is not well located, the average cost of production will be higher. For instance, when a social entrepreneur starts-up a firm in a remote location where labour supply is limited (inelastic labour supply), such an entrepreneur would adopt several mechanisms to attract labour. Most of these instrumental mechanisms would involve some cost which would add to the average production cost. According to Figure 3.7, there is a shift in the average production cost[20] from AC_1 to AC_2, thereby reducing the amount of profit from A+B to only A.

3.3. Social Capital Theory

Just as physical and human capital are important in productivity, so is social capital. Apart from institutional support, social support from the community is influenced by the extent of the entrepreneur's social capital within the community.

The social capital concept is an important idea that has been applied at different societal levels, from individual to national levels (Portes. 1998). This concept was first analyzed by Pierre Bourdieu in the 1980s (Portes, 1998). Various studies have used this concept to analyze different issues and all these studies have defined social capital from different perspectives.

[20] When fixed costs increase only average cost shifts up and marginal cost is not affected. Marginal cost can also be higher due to suboptimal location. In that case, both marginal cost and average cost are shifted up relative to the cost associated with the optimal location.

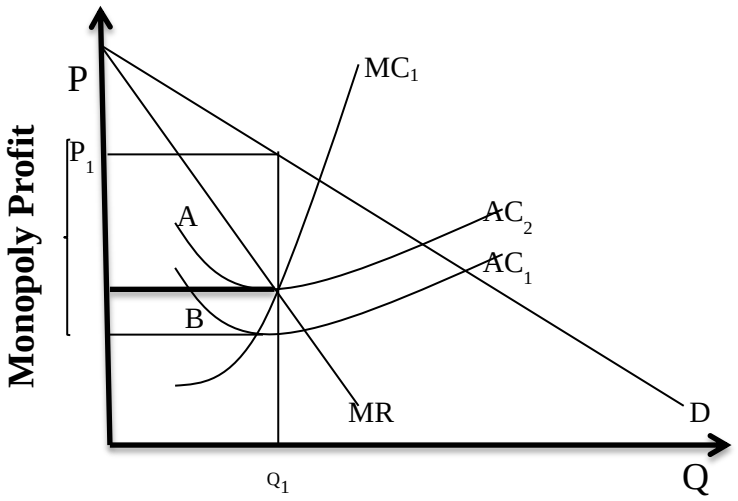

Figure 3.7 Graph Showing Non-Profit Maximizing Firm
(Source: Author, 2014).

3.3.1. Definition of Social Capital

- Bourdieu (1985, p.248), "The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition."
- Lesser (2000, p.4), "Social capital is the accumulation of wealth (or benefit) that exist because of an individual's social relationships"
- Adler and Kwon (2002, p.17), "Social capital is understood roughly as the good-will that is engendered by the fabric of social relations and that can be mobilized to facilitate action"
- Putnam (1995, p. 67), "social capital" refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit".
- Portes (1998, p. 6), social capital is "the ability of actors to secure benefits by virtue of membership in social networks or other social structures"
- Nahapiet and Ghoshal (1998, p. 243), define social capital as the "sum of the actual and potential resources embedded within, available through, and derived from the network"
- Hoffman *et al.* (2006, p. 136), "Social capital is a term used to identify resources that exist in relationships among people".

According to Fukuyama (1995), most economic activity is not done in isolation, but is carried out by establishments that require high social cooperation because the ability to work collectively determines the success of a business organization (Morris, 1996). Social capital in a family firm can be developed and maintained by the long-term nature of family networks and commitments (Dyer, 2006). Furthermore, development of social capital among family and a

firm's stakeholders (such as customers, suppliers and employees) may have some unique advantages to the family firm (Dyer, 2006). The author further notes that such relationships can foster long term personal commitment and loyalty to the family firm once developed.

According to Lester and Cannilla (2006) social capital can be explained from two approaches. The authors note that the instrumental approach explained by the works of Burt (1979, 1980, 1992) and Nahapiet and Ghoshal, 1998) takes the form of networks[21] and describes how networking benefits individual members through the easy flow of information. Furthermore, strong network ties among social groups, coupled with the level of personal network established by a firm's founder at startup of the firm influences the success and growth of firms (Brüderl and Preisendörfer, 1998).

However, the community-level approach developed by Bourdieu (1985) and Putnam (1993), stresses values, trust, and social support shared among community members (Lester and Cannilla, 2006). In addition, social capital is an important tool that holds a community together (World Bank, 2011) and can be depleted if not renewed periodically (like economic capital) (Fukuyama, 1995).

Social capital is beneficial in a number of ways, and can be used for different purposes such as "moral and material support, work and non-work advice" (Adler and Kwon, 2002, p. 17). It builds trust and cooperation in transactions (Fu, 2004), and, in turn, serves as a means of reducing transactions cost (Fukuyama, 1995; World Bank, 2011). Fukuyama, (1995) identified the significant role played by trust generated through social capital in the development of the industrial structure in Japan, Germany and the United States, as opposed to other countries with lower trust levels with less industrial development. The social networks generated from the relationships among individuals serves as information sources that could enhance productivity and, hence, reduce search costs. According to Batjargal, (2000), social relations are as important in the performance of firms as it supports purchase and sales.

In an attempt to seek optimum arrangement in the process of building their firms, entrepreneurs often use help and guidance received from both formal (government, banks, lawyer, etc.) and informal (family, friends, and other business contacts) networks within their local environment with their main source of help coming from informal contacts (Birley, 1986_b).

[21] "A network can be defined as the pattern of ties linking a defined set of persons or social actors" (Seibert *et al.*, 2001, p. 220)

In an effort to resolve problems such as leadership, succession, and family disputes in relation to the business, Lester and Cannilla (2006) argued that family firms should adopt mechanisms such as a board of directors. These authors further stressed that most successful family firms are the ones located in the center of the inter-corporate web of family-controlled companies where they have access to board members who are interconnected to different family firms of similar status. High social capital displayed by a family firm can create entry barriers for competitors (Carney, 2005) and, hence, enhances the family firm's economic power. Apart from social capital developed at the community level, social capital developed within the family firm (that is, between the leadership team and other employees) is also important in sustaining a family business (Danes and Brewton, 2012). Furthermore, success of a family business would not only benefit the firm's family but affects the host community (Danes and Brewton, 2012).

To facilitate entrepreneurship, it is important to utilize social capital within a culture that encourages entrepreneurship. Entrepreneurship will not thrive in a culture that does not value it even if the social capital is strong (Light and Dana, 2013). The authors further note that some researchers have wrongfully concluded that social capital fosters entrepreneurship because most of the studies are conducted in a cultural framework that supports entrepreneurship. It is obvious that some 'socio-cultural practices, morals and standards' may either motivate or prevent entrepreneurship (Krueger *et al.*, 2013, p.704).

A business oriented culture that exhibits strong social capital would support any emerging entrepreneur within their community other than the ones with minimal orientation to business. Culture can be defined as "collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede 1994, p. 5; OECD, 2009). In addition, some attitudes that may affect the start-up activities of a business are stimulated by the cultural structures (OECD, 2009). According to Hopp and Stephan (2012), indirectly, the cultural standards displayed within a community often stimulate business emergence through their influence on entrepreneurs' start-up motivation and beliefs. Furthermore, social capital is not just about strengthening social ties, it also entails the incorporation of some peculiar characteristics of families that can build trust (Salvato and Merlin, 2008). Based on the above review, the concept of social capital will be narrowed down from the community level to the family level.

In summary, the ability to acquire and maintain social capital is important to the success of family firm. There is a boundary to the level of social capital that can influence the success of family firms and that boundary depends on the existing culture in the community.

3.4. Family Capital Theory

"Family capital is the total bundle of owning-family member resources composed of human, social, and financial capital" (Danes *et al.*,2009, p. 201).

Apart from social-cultural support to the emergence of a sustainable entrepreneur, family characteristics and support from immediate family members are important factors that need thorough consideration when examining the longevity of a family business. This is important because family can have more effect on the business than the business on the family (Olson *et al.*, 2003). Furthermore, the success of the family business depends on the role played by the family in managing the overlay between the family and the business (Olson *et al.*, 2003).

According to Wilson *et al.* (2013), survival of a family firm is higher when compared with their non-family counterparts. According to these authors, the reason for this assertion was because family firms have high levels of social capital, efficiency, lower overall agency cost (especially when ownership and control are unified) (Carney, 2005) and some goals peculiar to families which motivate family firms to achieve success. In addition, it is not just the level of social capital that influences a family firm's ability to sustain success but the access to and utilization of this social capital by such family firm (Danes *et al.*, 2009).

Family oriented goals can be in the form of preserving family reputation (Berrone *et al.*, 2012). In addition, because of their reputation in the community, family members will strive to prevent the family firm from failing as failure of a family business can result in the loss of socio-emotional wealth (Wilson *et al.*, 2013) and, hence, failure in maintaining the family goal. The key concern of family firms is how to conserve the capacity to create value that would foster long term sustainability of the family firm from one generation to another (Salvato and Merlin, 2008). The potential to create long term value gives family firms a competitive advantage over their competitors and, hence, longevity of the firm.

Family capital theory is a special form of social capital. This theory emphasizes the unique characteristics of family firms that give them competitive advantage over non-family firms (Hoffman *et al.*, 2006). According to the proponents of the theory (Hoffman *et al.*, 2006),

the basic characteristic that differentiates family from other businesses is the influence of family relationships on the business. According to Hoffman *et al.* (2006), family capital can be divided into two components (structural and relational components). The structural component refers to social ties developed among family members over time through family interactions and their relationship to the outside world. The relational component refers to the family norms which include the distinguishing family characteristic such as obligations and expectation, reputation, identity, and moral infrastructure (Coleman, 1988; Hoffman et *al.,* 2006). The level of family capital increases when both structural and relational components are stronger (Hoffman *et al.,* 2006). Furthermore, family capital is a strategic resource that cannot be duplicated, because it is "rare, inimitable and non-substitutable" (Hoffman *et al.,* 2006, p. 141) as they are peculiar to each family. The proponents of the theory concluded that family capital is an important resource in the establishment of sustained competitive advantage (Hoffman *et al.,* 2006).

Salvato and Merlin, (2008) identified trust and reputation as important family characteristics that facilitate access to resources and are important in a family firm's strategic plans. Other family characteristics noted in the literature reviewed by Hoffman *et al.,* (2006 p.135) include integrity (Lyman, 1991), employee care, trust and loyalty (Ward, 1997; Taguiri and Davis, 1996), reputation and risk aversion (Aronoff and Ward, 1995; Tanguiri and Davis, 1996), and creativity (innovativeness) (Pervin, 1997; Ward, 1997), strong commitment, friendly and intimate relationships (Donnelley, 1964; Horton, 1986; Sirmon and Hitt, 2003, p. 342). According to Binz *et al.,* (2013), in an empirical study that investigated consumers' perception of family business, it was found that status of a company as a family firm strengthens consumers' preference for products and services rendered by a family firm, and this is because of relational qualities, such as reputation, affiliated to family firms by consumers. Carney (2005) also identified parsimony, personalism and particularism[22] as important propensities that give advantages to family firms especially in a resource scarce environment. These propensities facilitate the development and utilization of social capital (Carney, 2005).

[22] Parsimony refers to "tendency towards careful resource conservation and allocation", which implies that, family firms are more prudent with their resources (Carney, 2005, p. 254).
Personalism allows a family firm to project their own vision about their business (Chua. *et al.,* 1999; Carney, 2005) and this quality is important in making quick rational decision without going through any bureaucratic delay.
Particularism explains the discriminatory attitude in family business' transactions, family business often make transactions at arm's length and only keep close relationship with trusted partners (Uzzi, 1997; Carney, 2005).

An important competitive advantage of the family firm is minimum agency and transaction cost. In a family firm where trust, reputation and integrity are the founding characteristics, there is no need of expending extra cost on monitoring and enforcing and, hence, reduced tendency for opportunism (Carney, 2005). From this perspective, trust can be viewed as a governance mechanism (Eddleston *et al.,* 2010). Apart from cost reduction, for an additional family employee associated with the family business, the family business realizes more business revenue, this implies that family employees are more productive than non-family employees when paid to perform a job (Olson, *et al.,* 2003). Furthermore, family members provide the family firm with a stable source of dependable human resources during the early stages of the business (Dyer, 2006: Danes *et al.,* 2009).

On the other hand, although family firms may have minimum agency and transaction costs, they may also experience an increased agency costs if family member employees are guided by personal motives as opposed to economic motives that may be beneficial to the family firm (Lester and Cannilla, 2006). However, if family-owned firms aligned themselves with a community of like-minded and trusted organizations of close proximity when seeking an outside director for their board, agency cost would be reduced (Lester and Cannilla, 2006). Apart from alleviating agency cost, intra-family conflicts will be alleviated drastically especially when these set of directors are among the influential members of the community or nearby communities where related family firms are located (Lester and Cannilla, 2006).

The prestige and status of the family are important underlying factors influencing the longevity of family businesses. According to Gimeno *et al.,* (1997), it is more likely that entrepreneurs who have inherited family businesses will continue to operate the business even when their performances are at a low threshold level.

Family businesses are more often involved in social responsibilities to a greater degree than their non-family counterparts (Venter, 2008) which gives such families dignity and respect within the community (Ngoenha, 2006; Parr, 2006; Poovan *et al.,* 2006; Venter, 2008), hence, gaining the community's 'goodwill, loyalty and trust' (Kleberg, 2001; Venter, 2008, p.69).

Even though some academic literature has emphasized the positive implications of peculiar family characteristics, some other academic opinion suggests that factors such as altruism, nepotism and weak risk bearing attributes tend to harm the longevity of family businesses. Top professionals may be less attracted to family firms (Carney, 2005) as they may

not be considered in the succession plan, thereby limiting the long term growth prospect and wealth creation of family firms (Sirmon and Hitt, 2003).

In summary, not all family characteristics have positive effects on the longevity of a family firm and the applications of these characteristics vary among family firms. In conclusion, not all family characteristics are useful to the growth of a family firm.

After examining the unique characteristics of family firms, it will also be important to explain the concept of longevity of rural firms from the individual point of view, because without individuals there is no social aspect (Dawson, 2012).

3.5. Human Capital Theory

The concept of human capital was first argued formally by Theodore Schultz in 1961 where he introduced skill and knowledge as forms of human capital. He stressed the link between the economic benefits accruing from human capital development and the productivity of the country. Apart from benefit to the nation, human capital development is also beneficial to the individuals that have acquired the necessary skills and knowledge as it contributes to higher real income (Schultz, 1961). In order to improve human capabilities, it is important to invest in formal and organized education, on-job training, health facilities (with the aim of improving life expectancy), and study programs for adults (Schultz, 1961).

Human capital is an important resource that gives a firm competitive advantage in terms of the "skills, abilities, attitudes, and work ethic" of those hired by the firm (Dyer, 2006, p. 262). Brüderl, *et al.,* (1992), combined human capital theory with ideas from organization ecology and found that founders with a high stock of human capital set up businesses with high *a priori* chances to survive. Human capital can also be measured in terms of education, general work experience, and industry-specific experience (Brüderl, *et al.,* (1992). According to Dawson (2012), it is not just skills, abilities and knowledge that determine the human capital stock of an individual but also, the attitude and motivation of the founder.

There is mutual dependence between an entrepreneur's human capital and some forms of capital discussed above. The level of human capital often depends on the family characteristics and prevailing socio-cultural practices in the entrepreneurs region. Tàpies and Fernández (2010), identified education and socialization as the main resources for transferring family values that

contribute to longevity of family businesses. In addition, accumulation of social capital has it origin in human capital, (Danes and Brewton, 2012).

All large firms start as small businesses, hence, evaluating the prevailing conditions at startup of a business tends to shed more light on its longevity. According to Bates (1990), the longevity of a rural business is influenced by the level of education of the entrepreneur. He further noted that highly educated entrepreneurs with large financial input at startup are likely to establish firms that will survive for a longer period.

Previous work experience in a specific sector plays important role in determining the type of business an entrepreneur sets up (Reynolds and Miller 1990; Stearns *et al.*, 1995). In addition, individuals with a skill in a specific sector would only be efficient in organizations where such skill is required. The performance of a small or newly formed business is basically influenced by the human capital characteristics of the entrepreneur.

High levels of human capital may influence decision making in a family firm. With high levels of education among the employees of a family firm, better decisions may be made. On the other hand, there may be a conflict of ideas among the management team of a family firm as everyone would see things from their professional point of view, which may make immediate decision making a difficult task to achieve. In addition, on-job training facilitates human capital development that is needed for innovation and technological change (Baldwin and Johnson, 1995).

In summary, skills and knowledge acquired through formal education, on-job training and years of experience play important roles in the longevity of a family firm, however, this human capital stock may not be utilized to their full capacities if the individual is not well motivated or has a negative attitude to applying the acquired knowledge and skills.

3.6. Summary

This chapter explains the roles of the five major theories in analyzing the factors influencing the industrial location decision and the longevity of a family business. The first theory is the Weber's industrial location theory which explains industrial location decision from an economic perspective. This theory emphasizes the roles of transportation costs, labour costs and agglomeration economies as factors influencing the industrial location decision. However,

some location decisions are not only influenced by economic factor but also, socio-cultural, infrastructural and political factors.

The second theory examined is the X-inefficiency theory. This theory explains an individual or a firm's behavior from an unconventional economic theory perspective. This theory stresses that an individual or a firm will not act efficiently unless they are faced with a strong competitive pressure. A social entrepreneur may not act efficiently in term of a location decision, unlike a commercial entrepreneur whose location decision is solely based on economic factors. Social entrepreneurs often base their location decision on both economic and social factors and would only select a location that would support solving a social problem rather than a location that would maximize profit once a satisfactory amount of profit is attained. For a social entrepreneur to make location decision based on factors other than economic factors, and still remain in business, there must be some factors shielding the entrepreneur's business from strong competitive forces. Some of such factors identified in this chapter include market power, economies of scale and scope, and institutional support.

The third theory is the social capital theory which explains the roles of social and professional network in the success of a family business from a societal or community perspective. Social capital is a non-economic factor that can shield a rural business from a strong competitive pressure. It emphasizes on the role of social relationship in wealth accumulation by most rural businesses. Just like other forms of capital, social capital may deplete if not renewed regularly.

The fourth theory examined is the family capital theory which analyzes the success of a family business from a micro level. Family capital theory focuses on the roles of various family characteristics in explaining the success of family businesses. Furthermore, most of these family characteristics can be translated into corporate values within a supportive governance structure.

The fifth theory is the human capital theory which analyzes the success of a rural family business from an individual perspective. This theory places emphasis on the importance of skills and knowledge acquired in explaining the survival and longevity of a family business.

CHAPTER 4: CASE STUDY

4.1. Approach to this Study

A case study approach is adopted in this study. Case study is one of the methods of conducting research. It provides a focus on one instance of things to be investigated and therefore, concentrates more effort on individual cases rather than a broader category (Denscombe, 2003). According to this author, a case study tends to shed light on the general by looking at the specifics. Furthermore, this approach involves studying events in a natural setting and these events would be expected to continue to occur after the research project ends. The case study approach has some advantages that make it unique from the other research strategies. According to Denscombe (2003), a case study may result in a broader implication that may not be noticed in other research strategies that involve a larger sample size.

4.2. Source of Data

The data used in this study are primary and secondary data. Primary data was collected with the aid of a semi-structured questionnaire and the secondary source includes online publications, articles and textbooks.

4.3. Method of Data Collection

The method of collecting data adopted in this study is the key informant approach. An informal discussion was conducted with the St. Brieux town administrator. A couple of informal interviews were also conducted with the company's first plant manager, a former St. Brieux mayor, a close friend of Frank Bourgault, and a board member of the company. The last stage of the data collection was a general tour of the plant, which was conducted by one of the company's top experts in research and development.

4.4. The Town St. Brieux

The company analyzed in this case study is located in a town in the Canadian province of Saskatchewan named St. Brieux. The town is located on highway 368, midway between Humboldt and Melfort. The nearest city, Melfort, is a 40-km drive to the northeast, while

Humboldt, another major centre, is approximately 65 km to the south. The closest large urban centres are Prince Albert which is 110-km northwest and Saskatoon which is140-km southwest (Town of St. Brieux, 2014). St. Brieux became a town in November 8th, 2006 [23]and its population in 2011 was 590 (Statistics Canada, 2012a).

4.4.1. Brief History of St. Brieux

Many of the people who started this town migrated from Brittany, France in 1904. The name St. Brieux was chosen in memory of St. Brieuc, France, where many of the settlers originated. The initial name of the town was Father Le Floch's[24] mission. As the nearest post office at the time the immigrants settled was in Flett's Springs, which is around sixteen to seventeen miles distant, it was difficult to receive letters from Brittany, and therefore, the immigrants put up a petition to obtain a post office (Gallias, 1979). As a way to honour their hometown, the people decided to submit the name St. Brieux with their petition, which was subsequently accepted in June 1, 1905 (Gallias, 1979). Between 1908 and 1920, American settlers, many of whom were descendants of French Canadians that had earlier migrated to the United States of America joined the pioneer settlers. Other ethnic groups that joined the early settlers were Hungarians, Italians and some people from Ontario (Town of St. Brieux, 2014).

4.4.2. Economic History of Saint Brieux

According to Gallias (1979), this town's economic activity started in 1913, when the railroad was built to the town site. As it was the end of steel for several years (until 1921), it became an important trade center. Several businesses were started at this time which included – "a hotel, bank, a livery barn, restaurants, a lumber yard, and a couple of general stores" (p.5). The author notes that the first grain elevator in the town was built by West Grain Co. in 1914. It was a center of attraction for grain farmers from distant and neighboring communities. Furthermore, the extension of the railroad from St. Brieux through Humboldt in 1921, and them to Naicam, took a considerable number of businesses away from St Brieux. This was because the

[23] Culled from the Town's website homepage http://www.townofstbrieux.com/

[24] "According to Gallias (1979), "the Breton immigrants sailed from St. Malo on the S.S. Malo. They left St. Malo on April 1, 1904 with about 300 hundred people aboard, bound for various parts of Canada. Out of these people were certain numbers under the guidance of Father Le Floch" (p. 5). Rev father Le Floch was the one who led the Breton immigrants to St. Brieux after he had visited in 1903 (Gallias, 1979).

new towns were built along the rail lines (Gallias, 1979). The author states that in the early 1920s, a devastating fire destroyed the village core, burning several businesses, including the hotel and the bank. After this devastating occurrence, the community endeavored to rebuild its business base as agricultural business became the anchor of the economy for several decades (Town of Saint Brieux, 2014). After this period, Saskatchewan experienced a period of extended economic slump (tagged "Great Depression") in the 1930s, which adversely affected farming activities in the province. The Great Depression, coupled with the Second World War, led to business stagnancy in the town during this period. After the war, farming activities picked up when some of the returned men took over farming from the older men (Gallias, 1979). The excitement was short lived as farmers started to leave the farms in the 1950s and 1960s because grain was not selling and young people moved to the cities in search of jobs and a better life (Gallias, 1979). During this period, the author noted that business activities were slow and some businesses closed down due to insufficient population to support a number of economic activities. This trend was not just peculiar to St Brieux but also to other small towns in Saskatchewan[25].

In 1974, Francois Bourgault started a small farm machinery manufacturing company in the town, where he manufactured cultivators and harrows (Gallias, 1979). Bourgault Industries Limited has created jobs in this town and has prevented some of the community members from out-migrating from the town.

4.4.3. Bourgault Industries Limited

Early phase

Francois (Frank) Bourgault who established Bourgault Industries Limited was born in St. Brieux in 1924 to Mr. George Bourgault and his wife, Louise (Gallias, 1979). Growing up on the farm, Frank showed good inventive abilities combined with good mechanical knowledge which allowed him to invent and patent a type of root rake for his family farm (Bourgault Industries Limited, 2014).

Frank and his brother-in-law, Don Coquet partnered in the Massey Ferguson farm implement dealership in St. Brieux between 1969 and 1974. While he was in this dealership, he

[25] Summarized from the History of St. Brieux by Gallias (1979).

was able to use his mechanical skills to solve mechanical problems that were difficult for other mechanics of his time to solve. These exceptional skills earned him a reputation among other contemporary mechanics (Bourgault Industries Limited, 2014). Furthermore, he was able to observe the strength and weaknesses of every make of cultivator around his locality. Due to the stony nature of the farm lands near St. Brieux, most of the cultivators experienced bent shanks, poor residue clearance, poor burying of weeds and poor soil penetrating capacity. These observed weaknesses gave him the insight to develop a modified cultivator that would correct for the weaknesses in the already existing cultivators.

Apart from earning some income for himself and his family through the establishment of a cultivator manufacturing company, Frank was also community minded with the desire to make a positive difference in his community. During the late 1960s and early 1970s, farmers experienced some bust periods due to low grain prices and were selling off their farms. The difficulty in making ends meet in a small town provided an incentive for relocation to larger cities with more job opportunities. This out migration affected most communities negatively, where some lost most of their businesses and schools due to insufficient population to support these activities. This prevailing situation motivated Frank to create local employment opportunities for the St. Brieux community and its surrounding areas so that people would not leave their families behind in pursuit of a better life (The Cutting Edge, 2013_b)

Frank Bourgault started Bourgault Industries Limited in 1974 at the time of a boom for farm implements. There were about 10 workers, most of which were family members and friends. The company has grown from this humble beginning to a large organization with over 500 workers (Bourgault Industires Limited, 2014). Frank Bougault's sons were very helpful at the start of the business. Gerry Bourgault, who is his first son, joined the company in 1975 after he graduated from the college of engineering, while his second son, Joe Bourgault, played an active role as the company's sales representative travelling throughout the province recruiting dealers for the company and Frank's youngest son Claude Bourgault also joined the company after he completed high school. Frank also recruited his nephew, Richard Coquet from BC Hydro in 1976 to augment the family business. Richard has a degree in Civil Engineering from the University of Saskatchewan. Frank also recruited his friend, Paul Leray, as a partner to assist in building the facility and also to act as the company's production manager.

Company Splits into Two Divisions

In 1978, the company purchased the right to manufacture a unique seed metering system from Saskatchewan inventor Jerome Bechard (McInnis, 2004_b). This seeding system was modified and then served as the model for subsequent air seeder manufacturing in the company.

In November 1985, the company was separated into two main divisions, the air seeder division and the cultivator division. These two divisions manufactured and developed their product lines separately. They were operated under the coordination of one president (Frank) and they both shared the same marketing unit until 1991, when they were both established independently with separate management teams and presidents. The air seeder division purchased the large equipment production line from the cultivator division in 1991 and the cultivator division acquired a tillage tool manufacturing firm from the defunct Co-op Implements Limited and subsequently focused exclusively on manufacturing tillage openers. The tillage opener division has changed its name to Bourgault Tillage Tools Limited and it is the main supplier of tillage tools for Bourgault Industries cultivator line.

In the early 1990s, John Deere, attempted to purchase Bourgault Industries Limited, but the management of the company turned down the offer as they envisaged that the plant might be relocated from St. Brieux if sold to John Deere (Paul Leray, 2014).

Establishment of Auxiliary Industries

In the fall of 1992, Bourgault Industries Limited saw the need for further diversification by setting up a steel profile cutting facility. This stand alone, steel sheet and plate profile cutting division was established not only to provide profile cut parts for Bourgault Industries Limited, but also to other neighbouring manufacturers. According to the company's website, Bourgault Industries Limited also purchased a local plastic product manufacturing company, called Free Form Plastic Products Inc., which supplied the sprayer tanks, air curtains for sprayers, and various other plastic products. Free Form Plastic Products manufactures plastic components needed by Bourgault Industries Limited.

Major Challenges

Bourgault has also experienced some setbacks which contributed to an increase in transportation cost as a result of poor condition of highway 368 in the early 2000s. The company

could only load about 67% of the optimum capacity of its trucks thereby incurring additional transportation cost as trucks had to ply the highway several times to supply inputs and distributes outputs (Paul Leray, 2014). Apart from hauling cost, some of the company's workers found it difficult to commute to work as they incurred additional transportation cost due to a longer route. Some of the workers left because of this problem (Paul Leray, 2014). The booming economy of western Canada has also made it difficult for the company to recruit and retain workers. Most technical labour prefer to work for either the resource-dependent sectors such as mining or the construction sector than to work for implement manufacturing companies like Bourgault, probably due to the present boom in these sectors which has fostered a higher pay for their workers.

Major Acquisition and Extension of Network

Bourgault acquired Highline Mfg. Inc. of Vonda, Saskatchewan on May 23rd, 2006. The company was renamed Highline Manufacturing Ltd. with its head office remaining in Vonda, Saskatchewan. Furthermore, Bourgault Industries Limited has enhanced its product distribution network by opening branches in the U.S., Australia, Russia, Ukraine, and Kazakhstan[26].

Major Products

Some of the company's products include, air seeders, air drills, tillage tools, seeding openers and seed boots, cultivators, chisel plows, mounted packers, air hoe drills, wing type packers, grain carts, bale movers, coulter drill and harrow drawbars (STEP, 2012).

4.5. Definition of Terms and Model Specification

4.5.1. Family Business

> According to Colli and Rose (2007 p. 194), the family firm is one where a family owns enough of the equity to be able to exert control over strategy and is involved in top management positions.

This definition is being extended by emphasizing the percentage of share owned by the family. Therefore, the family firm in this study is defined as one in which a family owns at least 51

[26] History Summarized from Bourgault Industries Limited's website

percent of the company's shares and are involved in the top management positions giving them the opportunity to exert control over strategy and major decisions.

4.5.2. Longevity of Family Business

According to Ward (2004), only about one third (1/3) or about 30 percent of family firms survive to the second generation with about 16 percent surviving to the third generation. Based on this fact, this study defined longevity in a family firm as those that have survived beyond the first generation.

4.5.3. Model Specification

A qualitative model developed from theories and literatures has been adopted in this case study analysis, and it is explicitly stated below;

Longevity of Rural Family Business = *f* (entrepreneur and firm specific characteristics, location specific characteristics, market structure and product market).

Based on the above model, a conceptual framework has also been developed (see figure 4.1) from theories and literature to explain the specific roles of various socio-economic factors influencing the longevity of a rural family business.

4.6. Definition of Variables

The section explicitly explains the conceptual framework developed above and also the reasons for including different variables within this framework. These variables are classified under three broad classifications. Human capital, social capital, family capital, ownership structure, governance structure, innovativeness are classified under entrepreneur and firm specific characteristics. Infrastructures, institutional support, access to pool of quality labour, closeness to urban centers are classified under location specific characteristics. Concentration of local competing manufacturers and local product market are classified under market structure and product market.

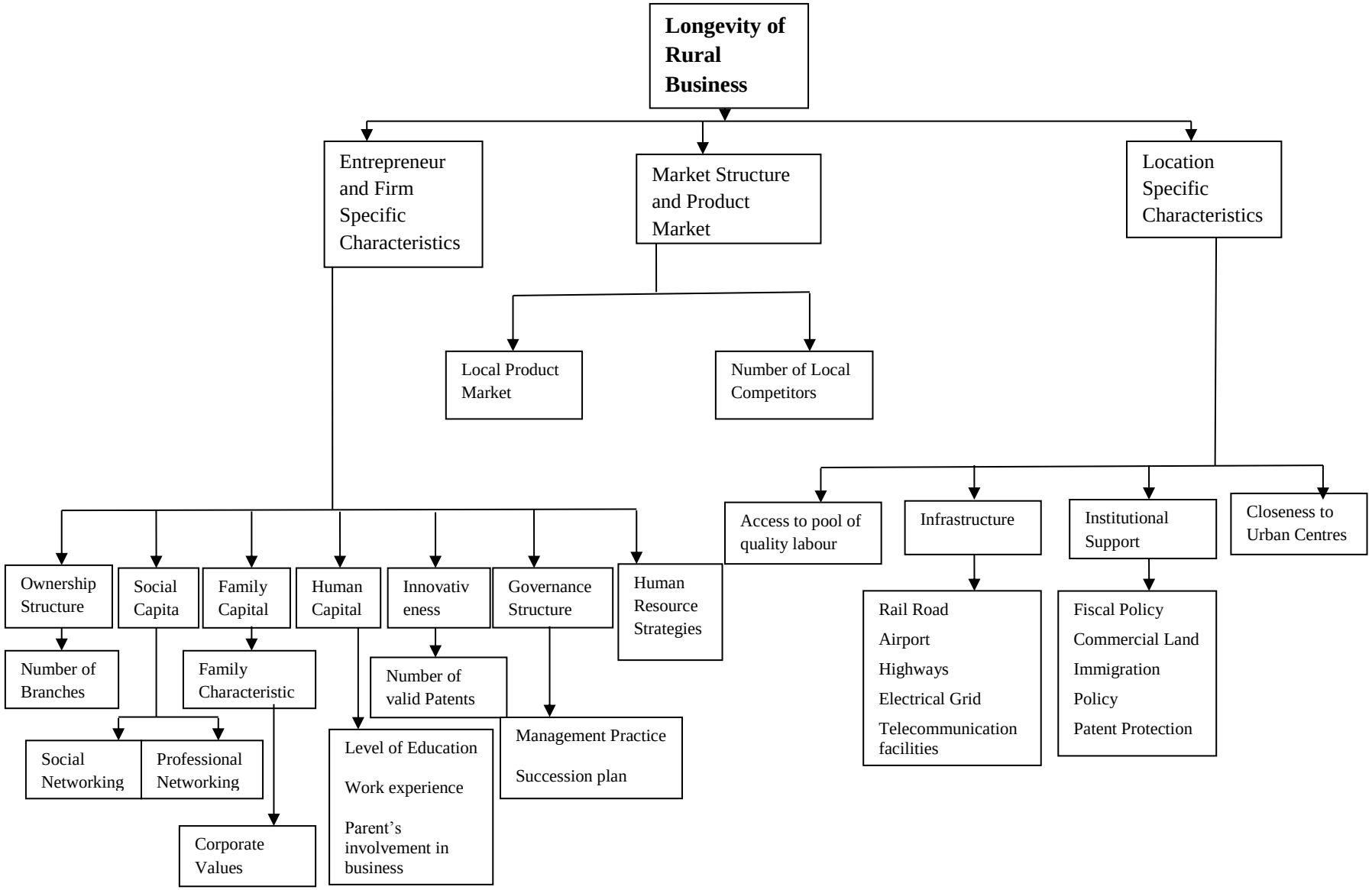

Figure 4:1 A Conceptual Framework Developed to Explain the Longevity of a Rural Family Business

(Source: Author, 2014)

4.6.1. Entrepreneur and Firm Specific Characteristic

Human Capital

This variable was captured by the personal characteristics of the family firm's founder such as educational level (Bates, 1990, Schultz, 1961), previous working experience (Schultz, 1961), and parents' involvement in the business. This variable has been divided into two phases. The first phase is the human capital level at the inception of the company and the second phase is the human capital at the growing phase. The education level is measured in years and this is based on the assumption that the more years spent in school, the more the skills and knowledge acquired. Another way to acquire skills and knowledge is through working experience. It is assumed that working experiences are often industry specific. Entrepreneurs with previous experiences in a related industry would have a good startup compared to entrepreneurs without prior knowledge (Gimeno *et al.,* 1997). Parents' involvement in business is another way of acquiring knowledge. It is assumed that an entrepreneur whose parents are business owners would have acquired knowledge, as it is likely that they are into such businesses with their parents. Lessons learned from their parents' successes and failures would guide them in establishing their own companies. At the second phase, human capital was measured based on the educational level of the company's president and the board members, as these are the people that decide on the future of the company.

Family Capital

This is measured based on some unique family characteristics and how they have influenced the company's success. Based on literature, this study has highlighted some basic family characteristics that could help the family business. This is based on the assumption that, unique family characteristics would be translated into corporate values. These corporate values can then be transmitted to the family business. According to Tapies and Fernandenz (2010), these corporate values give the business a competitive advantage over a non-family business. The characteristics include - integrity, reputation, teamwork, diligence, quality, creativity and Commitment to customer.

Social Capital

Just like the human capital variable, this variable was divided into two phases. The first phase is about the role played by community members at the start of the company (Birley, 1986_b; Lester and Cannilla, 2006). Another proxy for this variable is the major customers at the inception of the company. This variable was included because customers at this stage may prefer to select a Canadian product rather than an imported product as it is easy for them to lodge complains (Birley, 1986_b). At the second phase, a proxy for this variable is the role of professional networking in the trading of the company's products (Birley and Cromie 1988). This was based on the assumption that for a company to last longer, professional networking is important as it serves as a means of acquiring professional information. Professional networking was measured based on the number of management staff and board members that are indigenes to St. Brieux and nearby communities. The number of dealerships and memberships in any manufacturing related organizations such as Saskatchewan Trade Export Partnership (STEP), Prairie Agricultural Machinery Institute (PAMI) were also used to measure professional networking. It is expected that being a member of a professional or manufacturing related body would benefit a manufacturer. The number of dealerships is expected to benefit manufacturers. This is based on the assumption that the location of different dealers across the globe is a way of advertising the company's products as these dealers also have their own local networks. According to Wetherell and Corbet (1993), dealer networks contributed to the success of large farm implement manufacturers in Canada as manufacturers select dealers that are strategically located.

Another proxy for this variable relates to social networking. It is assumed that social networks build loyalty among and between customers and producers. In addition, social networks that could lead to loyalty are stronger in rural areas (Arenius and Clercq, 2005; Yu *et al.,* 2009). According to Wetherell and Corbet (1993), a survey conducted in 1970 in Canada showed that the majority of farmers bought a particular brand of equipment because they were familiar with the brand's performance and because of the dealer's reputation in providing services and making repair parts available. This last proxy was captured in the questionnaire by asking farmers reasons for using the company's products.

Innovativeness

According to Symeonidis (1996), there is a shift from causality to correlation when examining innovation, firm size and monopoly power. This assertion was based on the endogenous nature of these variables (Symeonidis, 1996). The larger the firm size, the more it tends to finance R&D as R&D mostly requires high sunk cost (Symeonidis, 1996). Furthermore, investment in R&D is often a onetime investment and firms can benefit from economies of scale.

Knowledge spillover and feedback play important roles in generating new products. The development of a new product satisfies different consumers' tastes and, hence, leads to different products within one firm. Furthermore, it is assumed that the development of new products is a function of feedback from buyers. Hence, this was measured in terms of the number of valid patents and the average number of patents in a year and the company's response to customers' feedback. The number of valid patents is correlated to the degree of short run market power a company has over its product (Ashton, 1987) and, hence, their degree of survival.

Ownership Structure

This is an important factor that influences a firm's survival (Audretsch and Mahmood, 1995). This was measured based on the number of branches or subsidiaries of a firm. This is because companies with branches are more likely to survive as these branches can benefit from the reputation and experience of the parent company (Yu *et al.,* 2009)

Governance Structure

This variable was measured by the number of family members on the management team, total number of management staff, succession plan and different management practices adopted by the company's management. It is assumed that the type of management practices adopted by a company have an important role to play in the survival and longevity of the company. A succession plan was included to know if the firm considers professionalism rather than family in its governance structure (Carney, 2005). It was based on the assumption that, firms that avoid nepotism in succession plans attract more professionals (Sirmon and Hitt, 2003) and may, in turn, influence the company's longevity.

Human Resource Strategy

This is an important variable in determining the success of any company. Workers may not exert the right effort in performing their duties if not motivated with rewards or threatened with punishments. In order to enhance labour productivity, some productivity incentives need to be in place as labour productivity is important to sustaining a company's success.

4.6.2. Location Specific Characteristics

Infrastructure

This variable is conceptualized as an indirect government support for the success of any firm. This variable was introduced to this study based on the assumption that, for a manufacturing plant to operate successfully, some basic location factors need to be considered**.** Transportation infrastructure reduces the average production cost for a firm by reducing the output distribution cost as well as input supply cost (Henderson, 2007: Yu *et al.*, 2009).

This variable was captured by a range of physical infrastructures such as access to motor highways, presence of telecommunication and internet facilities, the type of electrical grid present in the community, presence of rail lines, and an airport.

Institutional Support

This variable was measured based on a number of financial and non-financial supports by all the tiers of government. Some of the financial support programs considered in this study include - special provincial tax program and municipal tax policy.

The non-financial supports considered are both provincial and federal policies such as immigration policy that encourages the employment of skilled immigrants, the judiciary system and size of lands allocated for commercial activities within the local community.

Proximity to Urban Centers

This was measured based on the distance to a city of 5000-10000 and also to cities with a population size of 10000 and above. It is expected that the closeness to urban centers would motivate workers to work in rural areas as they would have access (within a few kilometers) to other supporting economic activities absent in rural areas.

Access to Pool of Quality Labour

Labour is an important production input and its availability is important to the success of a firm. Most firms consider this variable in their location decision-making. This was captured in the questionnaire by the question:

Did you at any point in time have any problem in recruiting workers for your company?

If yes, how were you able to solve the problem?

4.6.3. Market Structure and Product Demand

Concentration of Local Competing Manufacturers

This is measured based on the number of short line manufacturers producing similar products as Bourgault Industries Limited. It is expected that a high concentration of close players in similar industries would increase competition and weaken market power.

Local Product Market

This is measured based on the percentage of adoption of Zero tillage technology in Saskatchewan. The market pull for a product creates an incentive for continuous production of that product. In this case, the adoption of zero tillage technology would increase the market demand for air seeder and this could have enhanced the internal drive for continuous production and modification of air seeders. Emphasis is put on air seeders among the products produced by Bourgault Industries Limited. This is because air seeders comprise the major share of the company's products.

Table 4.1 Summary Table of all the Variables and their Proxies

A. Entrepreneur and Firm Characteristics	
Variables	**Proxies**
1. Human capital	**First generation** ▪ Educational qualification (in years) of founder ▪ Founder's previous work experience in related sector ▪ Founders' Parents involvement in the business **Second generation** ▪ Educational qualification of the current president and the board of director of the company
2. Family capital	▪ Family characteristics- integrity, reputation, team work, diligence, commitment, creativity
3. Social capital	**Initial phase** ▪ Role of community at start-up ▪ Customers loyalty at start-up **Ongoing phase** ▪ Professional networking measured by the number of management staff and board members that are indigenes of St. Brieux and nearby communities ▪ Number of dealerships and memberships in any manufacturing related organization ▪ Social networking measured based on brand loyalty
4. Innovativeness	▪ Number of valid patents ▪ Response to customers
5. Ownership structure	▪ Number of branches
6. Governance structure	▪ Number of family members on the management team ▪ Total number of management staff, ▪ Management practices ▪ Succession plan
7. Human resource strategy	
B. Location Specific Characteristics	
8. Infrastructure (Indirect government Support)	▪ Presence of Rail tracks, airports, highways, electric grid, telecommunication and internet
9. Institutional support (Direct government support)	▪ Financial – special provincial tax program, municipal tax policy

	▪ Non-financial – immigration policy, judiciary system, size of lands allocated for commercial activities.
10. Access to pool of quality labour	
11. Proximity to urban center	▪ Distance to city of 5000-10000 and also to cities with a population size of 10000 and above
C. Market Structure and Product Market	
12. Concentration of local competing manufacturer	Number of air seeder manufacturers in the province
13. Local product market	Percentage of the adoption of zero tillage

(Source, Author, 2014)

4.7. Location Decision

The major factors in Bourgault Industries Limited locating originally in St. Brieux were based on social and economic reasons. Apart from earning some income for himself and his family, Frank Bourgault decided to create off-farm jobs for the people of St. Brieux. When most towns in Saskatchewan were experiencing out migration due to low grain price, Frank Bourgault could not bear the site of his town turning into a ghost town and decided to create local employment for the community (Paul Larey, 2014).

Apart from this reason, he had already established some reputation in this area from his involvement in the Massey Fergusson dealership. This is a form of social capital that can be used to accumulate wealth. Unlike human capital, social capital is often location specific as it cannot be transferred from one place to another once established. It is a rational decision for him to locate the company in St. Brieux rather than in another place where he was not well known. From an economic point of view, the value of land in St. Brieux is lower in comparison to larger metropolitan areas. Furthermore, access to a pool of quality labour in the area was another reason. The company was able to make productive use of the excess labour released from farming activities.

Lastly, being a rural area, St. Brieux has active grain and oilseed farms nearby. Farmers are potential customers for farm implements. This provided, and still provides, a reasonable market for the company's products.

Another reason for the assertion that the company location decision was based on some social factor apart from economic factor is linked to an event that occurred in the early 1990s. During this period, John Deere made an attempt to buy out the company, but the management and the board of directors felt that the plant might be relocated from St. Brieux if it was sold. They therefore turned down John Deere's offer.

With time, some of the advantages that Bourgault benefited from at the start-up stages are no longer available, such as access to a pool of quality labour. It is therefore important to know how the company has been able to survive and continue production in St. Brieux despite some of the challenges it encountered in this location.

4.8. Factors Influencing Longevity

It is important to examine the factors that have made it possible for the company to survive over time and not relocate to larger cities or bought-out as experienced by some of its contemporaries. Hence, the contributing factors to the company's success in this rural town are examined.

4.8.1. Entrepreneur and Firm Specific Characteristic

This section of the case study is divided into two phases. This first phase is the early phase while the second phase is the growing phase. Some of the variables in this section are discussed in each phase.

Human Capital

First Generation

It is important to talk about the past before discussing the present, as this would assist in keeping track of the trend of events that have happened in the company from inception to date. Also, the condition at startup of most companies would have an effect on their present status.

This variable played an important role at the startup of Bourgault Industries Limited. It shows the level of experience and academic qualification of the company's startup team

Frank did not have any formal education beyond high school, but he was an able thinker with the right attitude and motivation to try out something new. His first invention was a gas

engine powered snow toboggan which he developed long before snowmobiles were developed. He also patented a distinct type of root rake for his family farm (Bourgault Indistries Limited, 2014).

Apart from being innovative, Frank was also industrious. As a 44 year old farmer in 1969, Frank partnered in the Massey Ferguson farm implement dealership in St. Brieux. His involvement in this dealership earned him a reputation as an outstanding farm equipment mechanic as he was able to solve puzzling problems that other farm equipment mechanics of his days were unable to solve (Bourgault Industries Limited, 2014). The experience acquired while partnering with the Massey Ferguson farm implement dealership helped him to modify most of the existing implements to suit the stony conditions of St. Brieux. After learning the strengths and weaknesses of the each cultivator down to its individual components, he identified some weaknesses such as excessive shank bending, poor residue clearance, lack of soil penetration capability, and poor weed kill and decided to develop a cultivator that would correct all of these weaknesses.

Frank realized the need of capable hands, especially people of like minds with adequate experience to start up this company. Apart from his partner at the Massey Ferguson dealership, he recruited Paul Leray as a partner to assist him in building the plant facility and to act as the plant's production manager (Bourgault Industries Limited, 2014). Paul, who once also owned a dealership, had acquired an enormous amount of experience in farm equipment manufacturing while working with Doepker Industries Ltd. of Annaheim, Saskatchewan. Furthermore, as at the time the company started, Frank's eldest son (Gerry Bourgault) was in the College of Engineering to obtain a degree and later joined the company fully after graduating in 1975. In 1976, Frank also recruited his nephew, Richard Coquet, who has a degree in Civil Engineering and was, at that time, working for B.C. Hydro. The names listed above were the human capital stock of the company at startup.

Second Generation

The current president, Gerry Boulgault has a degree in Engineering and the management team is composed of professionals with farming backgrounds. The company also has active board members with manufacturing backgrounds. Apart from the management and board members, the company also has highly qualified technical staff in the manufacturing department.

In order to foster human capital and also enhance production efficiency especially in the use of lean manufacturing[27], the company implemented training within an industry program (Canadian Manufacturers and Exporter, 2010).

Family Capital

Early Phase

Family members and friends played important role in at the startup of the company. The first prototype of the Boulgault cultivator was developed by Frank, his sons, his partners and local farmers between 1969 and 1973. His partner at the Massey Ferguson dealership was his brother in-law, Don Coquet. Everyone worked together as a team to develop the first cultivator. After developing these cultivators, the company was really committed to their customers and provided after sale services. Another important characteristic of this family business is the quality of the products and this has an important effect on the company's reputation.

Frank's sons also played significant roles in the startup. They all contributed creativity, hard work and diligence in pursuing the family's dream. His first son, Gerard, joined the company after he graduated from the college of engineering. According to the company's website, after completing high school, Frank's second son, Joseph, travelled throughout the province as a sales representative, recruiting implement dealers to retail Bourgault's new Dual-Purpose Cultivator. At that time, it was very difficult to recruit dealers as most of them were often in arrangement with full-line manufacturers. Claude, Frank's third and youngest son, also joined the company after completing his high school education (Bourgault Industries Limited, 2014).

On-going Phase

The company has been able to transfer most of the family characteristics, which were informally adopted in the early stage into corporate values. The company now puts more emphasis on the importance of quality, teamwork, creativity, integrity and commitments to

[27] Lean manufacturing is a hybridized system of manufacturing. It is a hybrid of craft production and traditional mass production system. It enables a manufacturer to produce customized products at a low cost. In addition, it allows a manufacturer to eliminate waste and improve production efficiency.

customer as its top corporate values (Paul Leray, 2014). Other corporate values such as diligence and reputation have been equally important to the success of the company so far. The workers are well incorporated to the company, which makes them have a sense of belonging, and this has enhanced their spirit of teamwork.

The company is committed to customers and performs after sale services. According to the company's mission statement;

> Bourgault statement is design, manufacture and distributes the highest quality, most durable and reliable farm equipment in the world, that is affordable and meets or exceeds the expectations of our most demanding customers (Bourgault Industries Limited, 2014).

Social Capital

Early Phase

Apart from earning some income for himself and his family, Frank was also community minded with the desire to make a positive difference in his community. During the late 1960s and early 1970s, farmers experienced some economic downturns due to low grain prices and were selling off their farms. The difficulty in making ends meet in a small town provided an incentive for relocation to larger cities with more job opportunities. This out migration affected most communities negatively, where some lost most of their businesses and schools due to low population to support these activities. This prevailing situation motivated Frank to create local employment opportunities for the St. Brieux community and its surrounding areas so that people would not leave their families behind in pursuit of a better life. The company started with about 10 workers who were young and middle age farmers in the community (Bourgault Industries Limited, 2014).

Bourgault Industries Limited was also supported by the neighbouring farmers at that time who trusted the company and were willing to buy Canadian made cultivators, as it was easier for them to lodge complains if needed and get a prompt response. According to Frank's friend;

> local surrounding areas bought the product even when it was not constructed to perfection; Humboldt and Melfort farmers supported because it is easier for them to return the equipment if they had problems. (Paul Leray, 2014).

Apart from this, order time was reduced due to proximity of farmers to the manufacturers. Furthermore, close friends supported Frank's idea and joined in raising part of the initial startup capital by purchasing some of the company's shares.

Apart from the social networking discussed above, Frank Bourgault was also involved in some professional networking. Professional advice and assistance were rendered by Doepker Industries Limited which is also a family business about 30 miles away from St. Brieux. Frank already knew the Doepker family prior to starting his own business. The family encouraged Frank to start manufacturing his cultivator. They also gave some professional advice on how to setup the business and also assisted him in manufacturing some of the cultivators that were sold before the plant was built (The Cutting Edge, 2013_b).

On-going phase

The company has shifted from social networking to more professional networking. Out of the 10 professionals on the management team, 8 are indigenes to St. Brieux. This is an indication of continued community support given to this company. The company has about 150 franchised dealers representing each of the company's key markets (Globalventures, 2010).

Saskatchewan Trade Export and Partnership (STEP) has been very beneficial to the company by assisting in establishing international business relationships. The president of Bourgault Industries Limited testified to this in Globalventures, (2010; p. 11) and said:

> We have used STEP's research capabilities and knowledgeable personnel to assist with market studies in various countries that have presented interest to us, and to help us identify and contact potential clients. We have since developed some very good relationships in overseas markets that continue to present excellent opportunities for large volumes of sales

The company also participates in different agricultural shows such the Agribition, the Annual Crop Production Show, to mention two. The company has a continued affiliation with the Agricultural Manufacturers of Canada (Formerly Prairie Implement Manufacturers Association (PIMA)).[28] There are a number of networking benefits associated with being part of this organization. This organization organizes the farm progress show, which gives manufacturers the opportunity to showcase their new innovations. Other professional affiliations include the Canadian Manufacturers and Exporter and the Saskatchewan Manufacturing Council.

[28] This body was established in 1970 and it acts as the voice for the agricultural equipment manufacturers. According to the organization's website, the body's activities include "lobbying on behalf of the agricultural manufacturing industry and thus provide a strong and effective advocacy for its membership against controversial legislation in a number of areas key to the industry, both provincially and federally". The organization also provides networking opportunities throughout the year by organizing several informative and educative seminars (Agricultural Manufacturers of Canada's website).

Furthermore, social networking is also still important at this stage. Some of the farmers interviewed purchased Bourgault's products because their friend is a Bourgault dealer.

Innovativeness

Frank Boulgault was a creative man who liked to try new things. His creative nature plays an important role in his success right from the start of the company. His first most accepted innovation was the dual-purpose cultivator that can perform the job of both cultivator and chisel plough. This innovation was well accepted by farmers and within three years, the company manufactured 1000 cultivators (Bourgault Industries Limited, 2014).

After the cultivator, the company developed other innovative implements. In 1978, the company acquired the right to manufacture a unique metering system developed by a Saskatchewan inventor, Jerome Belcher. This metering system has been modified and is now one of the major products manufactured by the company. The company was really committed to their customers from inception as they also provide after sale services. Feedback from farmers was an important tool in modifying and developing most of the company's new products. As the company emphasized making farming less frustrating, feedback from farmers has enabled the company to develop products that would make farming easier (The Cutting Edge, 2013_b). Presently, the company has about 60 valid patents and has continued to invest into R&D (Plant Tour, February 4, 2014).

Ownership Structure

With a humble beginning in a 4600 square foot building, the company has grown in size to about 600,000 square feet with the new 50 million dollar expansion, and has a work force of about 800 people. Although, most of the manufacturing is done in St. Brieux, the company has sale offices in the United States, Australia and Eastern Europe (Ukraine, Russia and Kazakhstan). The company has also extended its network to distribute their products in Asia. The company has a strategy of gradually introducing its products into areas of interest by exporting based on demand. After proper penetration in the market, it developed a physical structure to show its physical presence in the respective countries. These countries, as well as the sales offices, were not just randomly selected but were strategically selected. For instance before

selecting Minot, North Dakota for the United States sales office, the company conducted some location research (Bourgault Industries Limited, 2014).

Governance Structure

In 1985, the company split into two main divisions, the air seeder division and the cultivator division. These two divisions operated under the coordination of Frank as the president until 1991. These two divisions have different names and operate separately, but still transact business together.

Presently, the President (Gerry Bourgault) and his wife are the only Bourgault family members at the management level. This give rooms for diversity as professionals are employed to head different departments of the company. The company also has a succession plan which aims at handing over the leadership of the company in the near future to a professional manager and not a family member (Paul Larey, 2014).

In order to be more competitive, the company has adopted some strategies that would reduce production cost as well as make production more efficient. The company has constructed an energy efficient plant[29] in order to reduce the cost of heating during winter. The company has also adopted the use of a lean production system. Furthermore, the company has vertically integrated to bring "in house" previously out-sourced inputs. The company has its own steel profile cutting facility called CNC Precision Profiles Plus and also has its own plastic company called Free Form Plastics. The company now conducts its own agronomic experiments which were previously out-sourced to external agencies (The Cutting Edge, 2013_b). In order to enhance the quality of its products, the company has adopted the use of some advanced technology such as robotic welding and laser cutting.

The company extended its network in 2006 by acquiring a farm equipment manufacturing company called Highline in Vonda Saskatchewan. The company has diversified from a product company in 1974 to a multiproduct company and has been manufacturing different products such as, air seeders, air drills, tillage tools, seeding openers and seed boots, cultivators, chisel plows, mounted packers, air hoe drills, wing type packers, grain carts, bale movers, coulter drills[30] and

[29] "The air exchange system will filter and return the air to maximize the energy efficiency of the entire facility, while maintaining the air quality needed for a clean work environment" (The Cutting Edge, Spring 2013_a)

[30] Coulter drill or the independent coulter drill made by Bourgault Industries Limited "is a type of air drill seeding system designed in a coulter-style; it has some distinct features that distinguish it from other types of air drills. It

harrow drawbars (STEP, 2012). In 2010, the company also ventured in to aircraft manufacturing and has developed an experimental Light Sport Aircraft (U.S edition The Cutting Edge, 2010). However, this section of the company has not been commercialized.

The company also invests in advertisement. Since 2004, the company has been producing a yearly publication called "*The Cutting Edge"* which advertises most of its new innovations and why they are important to farmers. Apart from this approach, the company showcases most of its products at different exhibitions and shows.

Human Resource Strategy

Due to difficulty in recruiting and retaining staff and to enhance the workers' productivity, Bourgault has put some strategies in place. The company has adopted different strategies to motivate its workers. It has set aside a certain percentage of the company's shares for the employees. This is an important incentive because an employee who holds a portion of the company's share would invest more effort in order to earn more income through the company's capital gains and dividends. The company also has a profit sharing plan for its workers.

According to Bill Glanville, Human Resources Leader in 2008,

> We have a principal based management system, an industry leading pay structure which is tied to performance, productivity bonus and companywide profit sharing. There is a full complement of benefits ranging from health & dental to weekly summer barbecues. At Bourgault the opportunity for career growth and development is endless; it all depends on your desire to achieve! (The Cutting Edge, 2007/2008 winter).

Furthermore, the company provides a gas subsidy for its staff, and a housing incentive for any staff willing to buy a house in St. Brieux. Apart from monetary incentives, the safety of the workers is important to the company. This is achieved by giving a yearly award to the most safety conscious department (Plant Tour, February 4, 2014). This was evident in 2008 when the company became the first to receive the Agricultural Manufacturers of Canada's Certificates of Achievement in Safety and Health (Globalventures, 2010).

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ensures accurate seed placement for many trouble-free seasons, and this implement achieves consistent seeding depth in rolling land with a 1:1 parallel link design with minimal sensitivity to debris and existing seed furrows" (Bourgault Industries Limited, 2014). It can be classified as zero tillage or conservation tillage implement.

Just like labour availability, the company also faces some challenges in relating to recruiting dealers in Canada and the United States. Major manufacturers often prevent their dealers from taking on competing product lines (Globalventures, 2010). However, the problem has been strategically dealt with. According to Globalventures (2010, p. 11), the company president said;

> We have been successful in keeping our proprietary technology industry leading, which has allowed our product line to provide our dealers with exceptional returns, keeping them motivated to find ways to satisfy their mainline manufacturers and sell our products.

4.8.2. Location Specific Characteristics

Infrastructures in Saint Brieux

The disadvantageous location of Saskatchewan poses some transportation challenges to manufacturers within the province. Unlike provinces close to the tidewater, Saskatchewan is landlocked and this adds to the transportation cost of exported products. The only way to minimize cost and enable manufacturers to compete effectively is the provision and proper functioning of other mediums of transportation aside from water transportation. Apart from access to production inputs and product markets, infrastructure is an important location factor when considering a place to locate a manufacturing plant. Infrastructure is important in minimizing transportation cost and some transaction costs.

Saint Brieux location has some basic infrastructure that could support manufacturing activities. The major highway transiting Saint Brieux is Highway 368. This highway is about 90km long and was voted the worst highway in the province in 2006 (Wikipedia, 2014), as a portion of it was in terrible condition. This poor highway increased the transportation cost of distributing the company's products as it was difficult to have a fully loaded truck on this highway. Apart from the transportation cost incurred by the company in distributing its products, there was also a high input delivery cost.

In 2012, however, the highway was rebuilt with the help of a partnership plan involving the provincial government, local communities and industries. This was a great relief to the company. Bourgault now enjoys better shipment conditions as the road is now a primary road for 9 months in a year, making it possible to increase the truck load and, hence, reduce hauling cost. It is also easier for the workers to commute to work and other places within the province. In

a comment made on the reconstruction of highway 368 in a news release by Government of Saskatchewan in August, 2012, the President of Bourgault Industries Limited said;

> It will provide better and more direct access for trucks hauling steel, components and supplies to our plants and assembled equipment away from them. This upgrade to Highway 368 will also allow us to attract more employees from south of St. Brieux to help us meet the demand for farm equipment that we are currently unable to fill.

According to Statistics Canada (2012a), there is high-speed internet access in 47.9% of all farms in Saskatchewan. St. Brieux is among the rural areas with high-speed internet access. The presence of good telecommunication and high speed internet facility has assisted in reducing transaction cost in terms of information or search cost as well as negotiation cost. These facilities make it easy to transact business without being physically present. With these facilities, it is easy to obtain information, thereby reducing information cost.

The airport in St. Brieux is operated by Bourgault Industries Limited. This airport has been very useful to this company as it makes it easier for business partners to visit and transact business with the company and was particularly useful when the Highway 368 was in poor condition.

The rail road had not been of any help to the company until recently when the new Canadian National Railway CEO signed an agreement with the company on the use of the rail road to transport inputs and outputs in and out of St. Brieux. This new agreement will be beneficial to the company especially in products distribution and input supplies (Paul Leray, 2014).

In addition to the other infrastructural facilities, St. Brieux has a three phase electric power[31] which has high transmission capacity to support manufacturing activities.

Institutional Support

This is another factor that supported the company during its early years. Government policies at different levels provided important support for this company at startup. Before World War II, trade policies with the United States were favourable to prairie manufacturers. However, a later trade agreement on duty-free farm machinery import in 1944 was the beginning of a

[31] Three Phase electric power is a method of generating and transmitting electric current that is capable of powering heavy loads such as large equipment and machineries.

breakthrough for prairie manufacturers (Wetherell and Corbet, 1993). Furthermore, the auto pact trade agreement in 1965 strengthened the performance of the manufacturers, as it was easy for suppliers to export the component parts of farm equipment from the United State without any tariff. This further reduced the cost of production of farm equipment.

The provincial government also provided the basic infrastructure to support manufacturing after the Second World War. St. Brieux was electrified in 1953 and sewers and water were installed in 1964 (Gallais, 1979). This infrastructure provided by the provincial government is important as it makes the production process easier and less costly. Rural electrification provided avenues for farmers to use welding equipment to make repairs on their farm machinery. This supported Frank's innovative skills as there was the basic infrastructure to support him.

Coupled with the poor road, the booming economy in Alberta had made recruiting and keeping of manufacturing staff difficult as skilled workers were looking for greener pastures. The company lost some of its workers due to this poor road and some relocated to the oil booming Province of Alberta, but it was able to survive because of federal and provincial immigration policy that allows skilled immigrants to relocate to the country and the province. Most of the manufacturing staff of the company are from the Philippines and Ireland (Plant Tour, February 4, 2014).

In 1999, the legislative arm of the provincial government of Saskatchewan approved a new law that allows dealers to carry products of other short-line companies and not only full-line firms. Prior to the approval of this law, most dealers were compelled to sell only full-line manufacturer's product (Western Producer, 1999).

In addition, the institutional environment has been able to encourage innovation by protecting patent rights. Boulgault Industries Limited, on March 23, 2000, won a case against Flexicoil. Flexicoil was found guilty of a copy innovation patented by Bourgault. According to The Western Producer news bulletin (March 30, 2000), Gerry Boulgault (company president) was impressed with the judiciary system and said:

> Winning this case, winning the appeal and surviving the appeal to the Supreme Court has made him confident that patented farm innovations can be protected legally (The Western Producer News Bulletin, March, 30, 2000).

Institutional environment has also been supportive through tax breaks. At the town level, Bourgault Industries Limited has also benefited from lower property tax. Property tax for

companies in St. Brieux is lower when compared to other rural municipalities or to metropolitan cities such as Saskatoon or Regina (Government of Saskatchewan, 2010). The town has annexed land to accommodate the company's new expansion.

Proximity to Urban Centers

This is an important variable that assists in labour recruiting and retention. When the company started, most of the workers were from Humboldt and Melfort. The proximity to these cities made it easy for workers to commute on a daily basis.

Apart from this, proximity to urban areas gives the company's present workers the incentive to stay back and work with the company as they have easy access to other businesses and public services absent in St. Brieux. For instance, it is relatively easy to drive to Melfort, Humboldt or even Saskatoon for groceries and health care services.

Access to Pool of Quality Labour

With a humble beginning, this company started with 10 workers, which increased exponentially within 4 years of operation, in 1978, the staff number became 100 and by the 1990s the company had about 900 workers. Given this rapid growth, it was difficult to recruit and retain staff even though the company pays a competitive salary. One of reasons for this was is due to the poor condition of Highway 368, making it difficult for workers driving from the south of town to get to work. Strong economic activities in other parts Western Canada also led to strong competition for labour. Presently, the company has about 600 workers.

4.8.3. Market Structure and Product Demand

Concentration of Local Competing Manufacturer

According to Saskatchewan Trade Export Partnership (STEP) (2012), there are seven air seeders manufacturers in Saskatchewan.[32] Bourgault Industries Limited has many competitors

[32] Bourgault Industries, CNH (New Holland Saskatoon), Morris Industries, Pillar Lasers Inc., Seed Hawk, Seed Master, John Deere and K-hart industries Limited (STEP, 2012),

besides local manufacturers, as it also sells to international markets and most local dealers carry foreign brands. These competitors also produce similar products that perform the same basic function, but may be different in quality, brand reputation and appearance.

Hence, Bourgault Industries Limited operates in a monopolistic competitive market structure. In this type of market structure, competition is often based on product differentiation rather than price competition. A firm operating within this market structure has some degree of market power in the short run and to some extent sets its own product price.

Local Product Market

In 2011, Saskatchewan had about 38.45% (61.6 million acres) of the farm area in Canada (160.2 million acres). The entire Prairie region had about 81% (Alberta had 50.5 million acres and Manitoba had 18.08 million acres) of the farming area in Canada, thereby making the prairie a potential major market for farm implements.

Eighty one percent of these cultivated lands are subjected to conservation tillage where 56.4% are subjected to no-till method and the remaining 24.6% are subjected to other forms of conservation tillage (Statistics Canada, 2012b). There has been a significant shift from ecological reasons to economic reasons for adopting the zero tillage technology. Zero tillage technology has been adopted to a considerable degree in Saskatchewan where about 70.1 percent of the lands prepared for seeding are subjected to a no-till method (Statistics Canada, 2012b). This extensive adoption rate has created a local product market for Bourgault and its competitors. This market push has fostered the need for continuous manufacturing of air seeders by Bourgault. The early patent right acquired gave the company a lead over its competitors as it started manufacturing air seeders in 1980. The company is presently a leading company in the air seeder market in Canada and sells about 70% percent of its products in North America while the remaining 30% are sold to other parts of the globe.

4.9. Socio-Economic Discussion of the Case Study

This section explains the success of Bourgault within the theoretical framework of this study.

4.9.1. Weber's Location Theory

For Massey Ferguson to set up a dealership in St. Brieux, it must have seen a potential market for its products. To some extent, Bourgault Industries Limited is located in accordance to Weber's location theory as the prairies was, and still is the major market for farm equipment in Canada. Transportation cost is cheaper for any manufacturer on the prairies than for manufacturers in Ontario. In addition, farmers would prefer a close-by manufacturer as delivery time will be considerably reduced. Even though Bourgault is located in the market for its product, it is remotely located within the market region. This remote location has made access to adequate quality labour difficult. The supply of labour is inelastic as one moves away from larger cites. Another problem that the company experienced was a poor quality highway which added to the cost of purchases and distribution.

Even with these problems, Bourgault did not contemplate relocating its manufacturing plant to larger cities where it would have access to more labour. Instead, the company has performed three major expansions in the last 20 years. In 1994, the company made an eight million dollar expansion, in 2008, the company made a five million dollar expansion and is presently making a 50 million dollar expansion. Even though one of the reasons for situating the company in this town includes social considerations, however, economic factors may have been considered in its continuous presence in St. Brieux. The value of land in St. Brieux is much lower than in larger cities. Apart from this, the cost of relocation may be more than the anticipated profit and also, the salvage value of the property in St. Brieux is low, as it may be difficult to get a second best user for the property.

In summary, even though there are some economic benefits in locating in St. Brieux, this relatively remote location still leads to economic inefficiencies for the company.

4.9.2. X-inefficiency Theory

Bourgault Industries Limited has been successful in St. Brieux and is currently making a 50 million dollar expansion in this community. This raised a question that does being successful mean the same thing as maximizing profit or acting optimally? It is obvious that the company is making some reasonable amount of profits for it to still be in business and even consider an expansion.

Although there are some economic benefits in being located in St. Brieux, such as lower land value and other institutional benefits, however, the company may not be efficient in this location due to an inelastic supply of labour[33].

Considering figure 4.2 below, at the start-up stage of the company it is assumed that labour was slightly elastic due to the release of excess labour from farming activities. It is also assumed that the company's demand for labour was at the point where the marginal revenue product (MRP) of labour[34] is equal to the wages the company was willing to pay (optimum point of labour usage). Based on this assumption, the demand for labour was Q_1 and the amount wage paid was W_1 at the start-up of the company. This implies that access to pool quality labour was not a problem to the company at start-up. With time, the significant adoption of conservation tillage has fostered the change in demand for labour, making the demand curve to shift outward from D_1 to D_2. This has also increased the company's demand for labour from Q_1 to Q_2 and the amount of wages to be paid with this shift is W_2. Due to the boom in the economy of Western Canada, the supply of labour has also changed in a different way from the initial supply curve (S_1). The labour supply curve has shifted inwardly in an inelastic pattern. This implies that the proportional change in quantity of labour supply is less than the proportional change in wages paid.

The scarcity or shortage in labour supply is as result of economic boom in some resource-dependent sectors such as mining and in the construction sector in Western Canada. This has made recruiting and retaining technical workers difficult for a company like Bourgault. Now Bourgault pays high wages for less supply of labour. From the figure below, Bourgault's present state in terms of quantity labour supplied is assumed to be Q_3, and the wage paid for this quantity of labour is W_3. This wage is higher than what the company should have paid if labour supply was elastic. Even with this high wage, the quantity of labour supplied is lower than its new demand (Q_2).

The company has been able to augment the labour shortage by investing on labour saving technologies such as the robotic welder and the laser cutter.

[33] Inelastic supply of labour is situation that occurs when an increase or decrease in wages does not correspond to an increase or decrease in quantity of labour supplied. In the case of Bourgault, the percentage change in wages is more than the percentage change in the quantity of labour supplied.

[34] Marginal revenue product (MRP) of labour is the additional revenue a firm generate by employing an additional unit of labour.

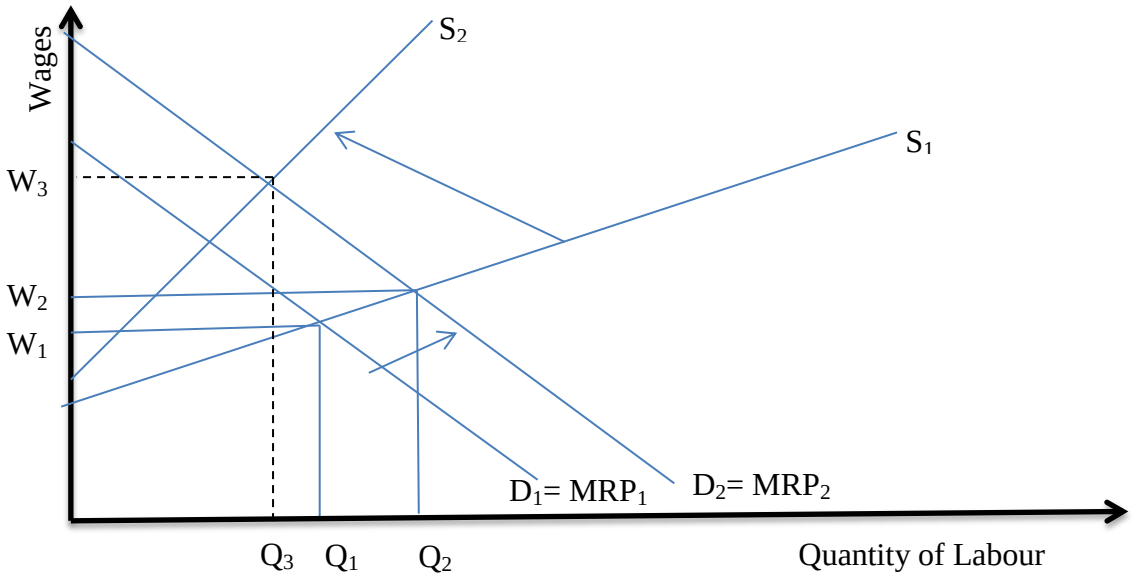

Figure 4:2 Graph Showing the Change in Labour Supply and Demand in Bourgault.

(Source: Author, 2014)

Even though the company is self-motivating and would not allow external pressure to dictate its economic status, the company may not be "fully rational" in its decision to continue to stay in St. Brieux. The company has put different management strategies in place to reduce its cost of production. Some of the cost reductions include agency costs, and transaction cost. Agency costs have, to some extent been alleviated with the use of an employee's share strategy as well as performance shared bonus. Transaction cost has been alleviated through vertical integration of some of the outsourced inputs, thereby preventing any form of hold up or cost of contractual agreements. In addition, technological advancement has helped in the reduction of search cost and the company does not have to be located with other similar company's before acquiring information. The company has also adopted the lean technology to improve its cost efficiency. However, most of these strategies have only enhanced the company's productive efficiency and may have enabled it to operate at reduced average cost. However, the company may not be operating on the most efficient average cost curve.

Considering the figure 4.4, there are four average cost curves that a company can operate on. The most efficient of these curves is the AC_0. Any company on the other average cost curves (AC_1, AC_2, and AC_3) is not efficient. It is assumed that Bourgault Industries Limited is operating

on AC_1 due to the extra cost spent in its current location. Its operation on AC_1 has reduced the total amount of profit meant to be gained by the company to region A rather than region A+B in figure 4.3.

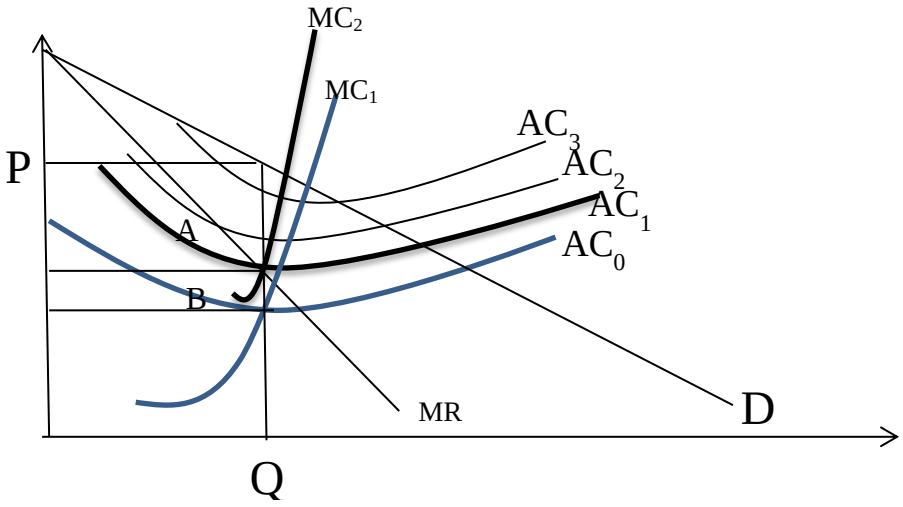

Figure 4:3 Showing the Inefficiency of a Social Entrepreneur

(Source: Author, 2014)

Figure 4.4 shows the effort position of Bourgault Industries Limited. It shows that the company is purposeful and self-motivated. The point of tangency (U*) between the company's desire curve and standard curve defines the company's effort position. This means that point U* is the most comfortable point where the company's utility gain in locating in St. Brieux is equal to its utility cost of locating elsewhere. Beyond this point may not be utility maximizing for this company but may be profit maximizing. The higher point of tangency U_0 is assumed to be the optimal location that optimizes the company's behavior in terms of plant location and, in turn, profit. This implies that Bourgault is neither fully rational nor irrational but has some degree of rationality in its decisions. Some of the management practices adopted by the company are the self-motivating efforts that have put the company in its present satisfactory level (U*). Beyond this point, the utility gain in locating in St. Brieux will be less than the company's utility cost.

This illustration is typical of a social entrepreneur who wants to solve a social problem which maximizes his/her utility rather than maximizing profit. Social entrepreneurs often tradeoff profit maximization for utility maximization, they pursue other goals once a reasonable amount of profit is achieved.

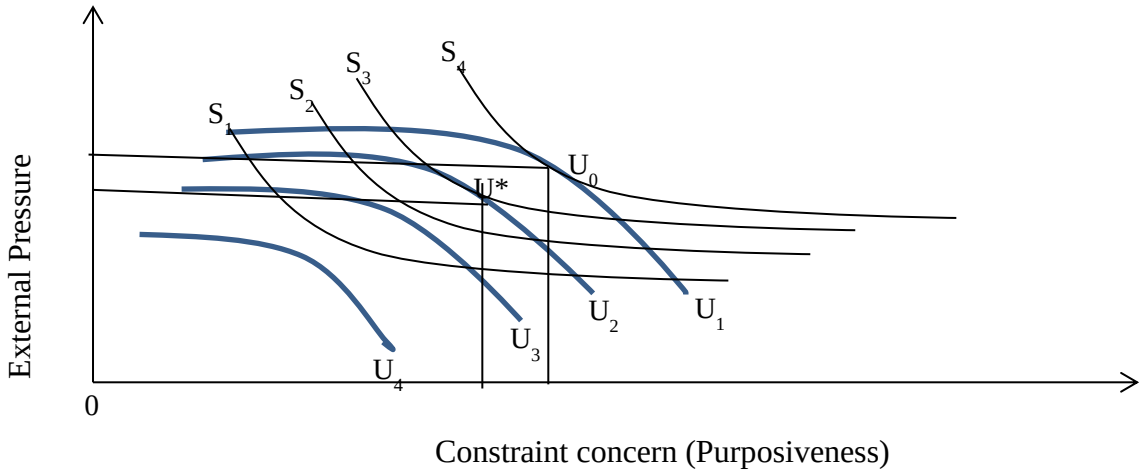

Figure 4:4 Representation of the Firm's Psychological State

(Source: Leibenstein, 1975; p. 584)

They derive satisfaction in solving social problems rather than concentrating more on the financial gains. They may not want to move from their point of inertia to a more optimal point if the purpose of their existence in a certain location would be jeopardized by such movement. Apart from other economic reasons explained in section 4.9.1. Bourgault Industries Limited would not want to relocate from this current location if such relocation would jeopardize the social problem the company is trying to solve.

According to X-inefficiency theory, there are some forces that are external to a firm, and these forces may influence a firm's competitive stand, and may force them to move from their state of inertia to a more competitive state. In the case of Bourgault Industries Limited, some external forces have challenged the feasibility of this company in St. Brieux. However, the company did not yield to this pressure. Ability to withstand this pressure could have been caused by some likely X-factors.

The company spends some reasonable amount monthly to provide incentives for the workers so as to retain them. Apart from this, during the periods of being served by a poor highway, the company did not relocate and preferred to incur an additional transportation cost. For a company to act like this and still remain in business, it must have some degree of economic power. This economic power is the X-factor preventing the company from relocating from this area even with all the challenges encountered.

The creativity of Bourgault Industries Limited has led to the development of new innovative products. The new products have been patented, thereby giving the company some

form of market power in the short run. Furthermore, the short term market power has created some entry barrier to potential competitors. However, in the long run, the economic profit tends to be similar to a perfect competitive market because patent protection will someday expire and other competitors may start producing the products. This may be the case only when consumers' taste is the same for a long time. In reality, consumers' taste keeps changing and Bourgault has been able to keep up with this pace of change. Furthermore, the company has been able to widen its production lines by diversifying into the production of other farm equipment. This strategy has enabled the company to capture a wider range of consumers. Ability to do all these, coupled with its innovative skills have put the company in a competitive position and to some extent, it has the power to set its own price and make strategic decisions without considering other competing players. The investment in R and D is often a one-time large investment, and once such research is completed, the process that led to the successful research can be used to produce several products at a constant marginal cost. In addition, this company has also benefited from economies of scope at both management and manufacturing levels. The same set of management team makes major strategic decisions for all the product lines and also, the same set of technical workers employed to construct air seeders, for example, are also used in the manufacturing of other product lines.

Reputation is another X-factor observed in this study. Reputation is built over time and it is correlated with longevity. From farmer testimonials, Bourgault Industries Limited has a good reputation for its products and services rendered as farmers see the company's product as durable, easy to use and making life easier for them.

4.9.3. Social Capital

Social capital is an important x-factor that plays a significant role in the company's success. The company has been benefiting from the support of the local community and in particular, the local government. This support are both monetary and non–monetary in nature. The monetary benefit is in form of tax breaks. The non-monetary support is in form of social and professional networking. At the early phase of the company, there is an overlapping relationship between social networking and professional networking. However, social networking played a more important role than professional networking. Overtime, the

importance of professional networking is becoming more prominent than social networking even though these networking types still overlap (see figure 4.5).

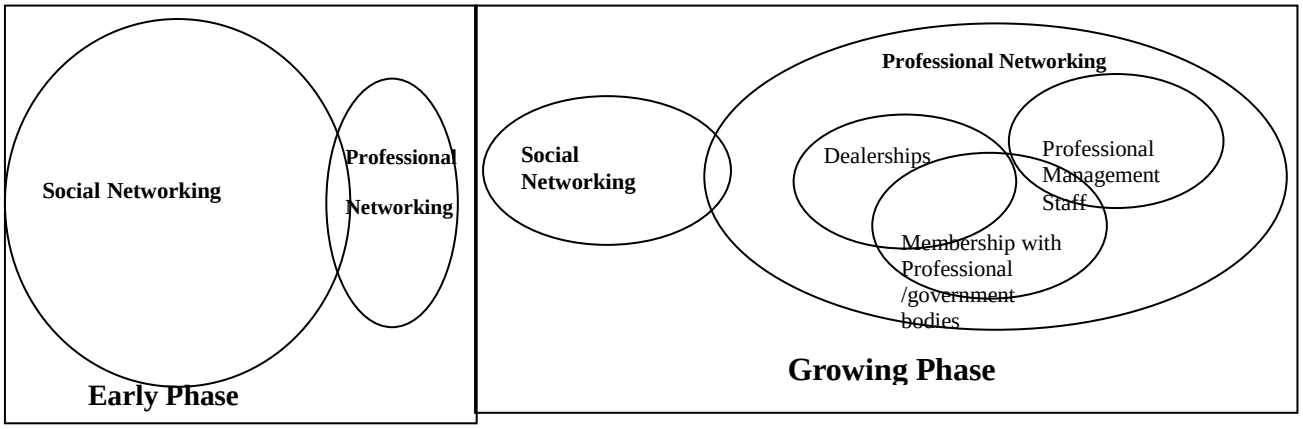

Figure 4:5 Roles of Social and Professional Networking at Different Stages in a Company
(Source: Birley and Cromie 1988)

4.9.4. Human Capital

The founder of the company had no formal education beyond high school. He had the right motivation and attitude, however, coupled with his association with like-minded people. The early and continued success of the company, however, was influenced by the overlapping relationship between self-motivation, optimistic attitude and professionalism. However, self-motivation and optimistic attitude played a larger role than the professional skills in the early years of the company. This is because most of the initial cultivators were not perfected and the company had to readjust them before the desired product was achieved. During this period, self-motivating spirit kept them going as the design team was never discouraged. As the company grew, professionalism became a major factor but in combination with self-motivation and the inter-generational entrepreneurship spirit.

4.9.5. Family Capital

In the early stage of the company, family members were the core part of the management and design teams and family characteristics (values) such as integrity, handwork, creativity, team work and quality kept the company going at the early stage. As the company grew, it has been able to transform most of these family characteristics into its corporate values in order to serve its customers better.

Additionally, at the early stage of Bourgault Industries Limited, there was an overlapping relationship between social, family and human capital which were linked together by a pro-business culture. Some scenarios will be used to explain this assertion.

Scenario 1- Frank Bourgault had a mechanical instinct to solve different mechanical problems. He invited his family members and friends to support his dream and later invited other willing community members.

Scenario 2- Gerry Boulgault could have studied engineering due to his father's innovative skills. In addition, his father owned a farm implement dealership and he must have assisted his father.

Scenario 3- Apart from owning a dealership, his close friend also owned a dealership and had a close relationship with the Doepker brothers, who assisted in manufacturing some of the cultivators. In addition, the community members supported the company and everyone wanted the company to survive.

At the growing phase, professionalism became more important and the company moved from an informal strategy to a more formal one. Most of the management team members are professionals and the technical staff are qualified technicians. The interwoven relationship between social, human and family capital still holds. This relationship is more skewed towards professionalism than informality and has gone beyond local and national levels to the international level.

- Some of board of directors are from St. Brieux and some of them have manufacturing background
- Most of the technical workers are immigrants, while some are still indigenes of St. Brieux
- Only professional family member are involved at the management level.
- A professional manager will take over once the president retires rather than a family member.
- There are several dealers both nationally and internationally
- There are branches beyond St. Brieux.

4.10. Summary

It is difficult to conclude that a particular factor played the most important role in the success of Bourgault Industries Limited. However, based on the evidence and the interview, some ordering of degree of importance of the various factors in explaining the success of Bourgault Industries Limited over time is possible. Below is a table that explains the degrees of

importance based on the five examined theories and literature. It has been expressed in a five scale ranking, ranging from 1 to 5, with 5 being very important and 1 being not important. Very important (5) means that particular factor played a prominent role in the existence of the Bourgault Industries Limited at that stage. While Important (4) means that the factor also played a prominent role but to a lesser degree than 5. Moderately important (3) implies that the factor played a neutral role at that stage. This suggests that the company would have survived with or without this factor, but its presence enhanced the company's performance at that stage. Low importance (2) implies that this factor played a minor role in the success of Bourgault Industries Limited at that stage. Not important (1) suggests that a factor is of no use to the company's performance at that stage.

Table 4.2 Factors Important to Bourgault's Success in Rural Saskatchewan

	Start-up	First 10 years	Beyond 10 years
Location factors—			
• Value of Land	4	4	4
• Property Tax	4	4	4
Access to Public Infrastructures			
• Highway	4	4	4
• Telecommunication Technology	3	4	4
• Airport	1	1	3
• Electrical grid	4	4	4
Access to Pool of Quality Labour	4	4	4
Profit Maximization Motivation			
Internal Factors (Organizational Strategies)			
• Innovativeness	5	5	5
• Governance Structure	5	4	4
• Ownership Structure	1	1	4
• Human Resource Strategies	3	4	5
External Factors			
• Reputation	5	5	5
• Institutional Support	4	4	4
• Market expansion	4	4	4
Social Capital –			
• Social Network	5	4	3
• Professional Network	3	4	4
Family Capital			
• Family Characteristics and Corporate Values	4	4	4
Acquired skills and knowledge			
• Educational Qualification	3	4	4
• Previous Work Experience in related field	5	4	4
• On-job Training	4	4	4

(Source: Author, 2014)

Scale Key

1- Not important
2- Low importance
3- Moderately important
4- Important
5- Very important

CHAPTER 5: SUMMARY AND CONCLUSIONS

This final chapter summarizes the thesis and the major findings of the research. It also discusses the limitations of the research and suggests potential areas for further research.

This study has adopted a case study approach to analyze the socio-economic factors influencing the start-up and longevity of a specific rural manufacturing company in Saskatchewan, Bourgault Industries Limited located in St. Brieux, Saskatchewan.

Specifically, this thesis objectives are to: (1) investigate and document the reason for establishing Bourgault Industries is St. Brieux; (2) investigate the factors influencing the success of the plant in St. Brieux; (3) identify the role of local infrastructure, transportation routes and appropriate quantity and quality of labour in the success of rural manufacturing; (4) identify the role of social cohesion and family ties and; (5) examine the influence of land and labour price as well as proximity to larger centres in the success of rural manufacturing.

The data for this case study were collected with the aid of a semi structured questionnaire and interview sessions with the town administrator and the company's first production manager. A tour around the plant was led by a key figure in the company's R&D department. Other secondary data were obtained from different online publications. The factors influencing the longevity of this company were documented in chapter 4. A conceptual framework was developed from Weber' theory of industrial location, X-inefficiency theory, social capital, family capital and human capital theories, and literature. This conceptual framework was applied to this case in chapter 4 and suggests that the longevity of a rural family business is a function of three broad categories along with sub-categories, some of which are interrelated.

5.1. Summary of Research Findings

The decision of Bourgault Industries Limited to locate and to stay in St. Brieux was based on economic and social factors. Some of the economic benefit arising from making this location decision, such as access to pool of quality labour no longer applies. This implies that a location decision is made in the face of uncertainty. In spite of some of the challenges faced by this company in this location, the company has been able to survive and it is currently making a 50 million dollar expansion in this locality. It is, however, important to know the factors contributing to the success of the company over the last 40 years.

The location decision is based on different factors other than maximizing profit, especially if such a decision is made by a social entrepreneur. Even if the location decision is correctly made at the initial stage, some of the factors influencing the initial location decision may no longer exist with time. This means that selecting the best location may be an impossible task as different long run uncertainties may occur.

Due to the difficulty in selecting a best location in the long run, a self-motivating social entrepreneur may not be maximizing profit in the long run even if other cost efficient organizational strategies are put in place. Even though optimum profit may not be achieved in the long run due to different uncertainties, the success of a social entrepreneur to at least break even or make some satisfactory level of profits lies within the web of various factors. Some of the factors include: social capital, family capital, human capital, existing within the pro-enterprising culture, some organizational strategies, location specific characteristics and demand for the company's products and the market structure in which the company operates. All these factors have evolved over time in a way to put Bourgault in a more advantaged position than when the company started.

Social capital has played an important role in the success of this company. This factor is divided into social and professional networking. Apart from this, affiliations with different professional bodies have also been of importance. Family members also played important roles at the start up and growth stages of the company. Some of the unique corporate values that have kept the company going are creative and entrepreneurial spirit, teamwork, quality, commitment to customers and integrity. Previous job experience, professionalism, self-motivation, pro-business attitude and continuous on-job training are important human capital stocks that have played important roles in the company's longevity. The company has also put some organization strategies in place such as continuous innovation in order to develop new products and capture more market. Furthermore, the company has extended its network beyond St. Brieux and has sale offices in the United States, Australia and Ukraine. The company has opened its door for top professionals as it has a succession plan of handing over the company to a professional manager and not a family member once the current president retires (Paul Leray, 2014). Some management practices have also been put in place in order to be cost efficient. They include, a lean manufacturing system and an energy efficient plant. The company has also established two

auxiliary companies to supply plastics and steel cuts, eliminating the need to out-source for them and, hence, reduces some transaction costs.

Location specific characteristics also played a significant role in the longevity of the company. Infrastructure facilities in St. Brieux have been useful especially with the upgrading and reconstruction of Highway 368 to operate as a primary road for 9 months in a year. This has assisted in reducing some hauling cost, as the trucks can be fully loaded during the distribution of outputs and supply of inputs. In addition, the town is fortunate to have three phase power which is an important electrical grid infrastructure for manufacturing. The information and communication technology has made business transactions easy and has aided in the reduction in information costs. The institutional environment in which this company is located has also helped by providing incentives such as tax breaks, and has also been able to protect the company's innovation through intellectual property right, thereby encouraging development of more innovative products. Apart from this, free trade within North America has also been helpful because the company sells about 70% of its products within North America.

The development of innovative products has given Bourgault some form of market power and to some extent, on the selling price of its products. In addition to this, significant adoption of no-till technology has also been an important contributing factor to the company's success. Bourgault is one of the leading manufacturers of air seeders, which, is an implement used for conservation tillage practices.

5.2. Conclusions and Policy Implications

In conclusion, the success of Bourgault Industries Limited lies with the interwoven relationship of right timing, continuous product development, location specific factors, social cohesion and family ties, organizational strategies peculiar to the firm and the adoption of no-till technology. It is important to note that the conclusion is unique to the case of Bourgault Industries Limited, which is a single example of a wide spectrum of rural manufacturing businesses. Based on this statement, the extent of generalizing any conclusions from this case

study depends on the degree of similarities (in term of physical location, social location and institutional location[35]) of this study to others of its type.

However, some of these factors still provide some valuable information that can support rural developmental policies. While the success of Bourgault Industries Limited is influenced by the interwoven relationships of different factors, the location decision was based on both economic and social factors.

Some of the existing government policies (highlighted in the body of the thesis) have been very supportive to the success of Bourgault Industries Limited. Some of which are peculiar to Canada as a country as well as to Saskatchewan as a province. In addition, some policies are also peculiar to St. Brieux as a town. This study has some policy suggestions for the provincial government, most rural municipal governments and also to the government of rural towns and villages. One of the important policies that have fostered Bourgault Industries Limited decision to remain in its host town (St. Brieux) is the low property tax policy. This is not a common policy among most rural municipalities, as most rural municipalities' policies have been supportive to farming activities rather than other forms of business. Property taxes for non-farming businesses are high among most rural municipalities in Saskatchewan (may be to protect the farming lands) which could drive potential investors away. A policy suggestion for rural municipal government that may motivate a potential entrepreneur in locating his/her firm in a farming community maybe through property tax breaks.

Of all the rural infrastructures examined in this case study, two played prominent roles. The upgraded highway and three phase power transformer played an important role in the success of Bourgault Industries Limited in St. Brieux, coupled with other economic benefits such as property tax breaks. Therefore, if major highways to rural locations hosting secondary manufacturing companies in Saskatchewan are upgraded to operate as primary highways for at least 9 months in a year, some manufacturers may not consider relocating their firms from rural areas. This policy recommendation is based on the net present value of the highway as well as costs and benefits of such investment. The government should support this policy recommendation as long as the benefits from such investment are greater than the cost.

[35] Physical location consist of geographical area, town and building , social location consist of the demography of the location in term of sex, age, ethnic groups etc. and institutional location consist of various government and organizational policies (Denscombe, 2003).

Another public infrastructure that has fostered the success of Bourgault Industries Limited in St. Brieux is the three phase power transformer. This is an important infrastructural facility that would support the location decision location of large manufacturing plants that make use of heavy tools for manufacturing, and, hence may prevent industrial relocation.

5.3. Limitations of the Research

This research is not without some limitations. The conceptual framework developed in this thesis may only be applicable to rural family businesses. Furthermore, because of limited access to data on the company's market share for air seeders for instance, it is difficult to statistically determine the company's level of market power.

In addition to this, lack of access to the company's private financial statements has limited this study to other forms of capital apart from economic or financial capital. Financial capital is an important variable that could have explained the longevity of the company. It is also difficult to generalize from the result of this study because it is one example of a broad category of rural manufacturers.

5.4. Suggestions for Further Research

There are some other research opportunities that can be developed from this thesis. Firstly, it may be interesting to conduct research that would measure the value of entrepreneurship by analyzing the impact of Bourgault in St. Brieux and neighbouring communities. In addition to this, a comparative study measuring the factors influencing Bourgault success may be conducted with some rural family businesses that manufacture similar products.

Secondly, another study similar to this may be to analyze a successful rural family business involved in a different business activity other than manufacturing.

Lastly, because one of the factors influencing Bourgault's success in innovation, it may also be interesting to analyze how short-line manufacturers commercialize their innovations. This is important because a company will not be successful if there no demand for its innovation.

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APPENDICES

Appendix 1

List of Farm Implement (Seeding and Tillage) Manufacturing Companies in Saskatchewan

	Names	Location	Category
1.	Bergen Industries Inc.	Drake	Tillage and Land preparation
2.	Bourgault Industries Ltd.	St Brieux	1. Seeding and planting 2. Tillage and land preparation
3.	Bourgault Tillage Tools Ltd.	St Brieux	1. Seeding and planting 2. Tillage and land preparation
4.	Brandt Group of Companies	Regina	Tillage and land preparation
5.	CNH Canada (New Holland Saskatoon)	Saskatoon	1. Seeding and planting 2. Tillage and land preparation
6.	Capital "I" Industries Inc.	Tisdale	Tillage and land preparation
7.	Combine World Inc.	Allan	Tillage and land preparation
8.	Degelman Industries Ltd.	Regina	Tillage and land preparation
9.	Dutch Openers	Pilot Butte	1. Seeding and planting 2. Tillage and land preparation
10.	Haukaas Mfg. Ltd.	Mortlach	1. Seeding and planting 2. Tillage and land preparation
11.	Highline Manufacturing Ltd.	Vonda	Tillage and land preparation
12.	Honey Bee Manufacturing Ltd.	Frontier	Tillage and land preparation
13.	Leon Ram Companies	Yorkton	1. Seeding and planting 2. Tillage and land preparation
14.	Mole Hill Destroyer K.A.M. Inc.	Kamsack	Tillage and land preparation
15.	Morris Industries Ltd.	Saskatoon	1. Seeding and planting 2. Tillage and land preparation
16	Pillar Lasers Inc.	Warman	
17	Ralph McKay Industries Inc.	Regina	Seeding and planting
18.	Rite Way Mfg. Co. Ltd.	Regina	
19.	Schulte Industries Ltd.	Englefeld	
20.	Seed Hawk Inc.	Langbank	1. Seeding and planting 2. Tillage and land preparation
21	SeedMaster	Emerald Park	Seeding and planting implements

Source; Saskatchewan Trade and Exporting Partnership (STEP) 2012.

Appendix 2

Questionnaire

A. Entrepreneurs Characteristics and Ownership Structure

- **Human Capital**

What was Frank's level of education?
Did he have any previous experience in related venture?
Were his parents were business owners?
What was Frank's Age of entrepreneur when the company started?
Did he experience any failure establishing a business before Boulgault Industry Limited?

- **Social Capital**

Was Frank raised and lived in St. Brieux?
What role did the community members play at the startup of the company?
Did family members and friends contribute to the startup capital of the company?
What other role did family and friends play at the startup of the company?

- **Family Characteristics**

From the list below, select the five most important corporate values that have influenced the company's success over time.

- Integrity
- Commitment to customer
- Quality
- Diligence
- Teamwork
- Reputation
- Creativity

Can you discuss more on these corporate values, especially on how they have influenced the company's longevity?
Is there any succession plan?

B. Company's Characteristics

What is the total number of employees of the company**?**
What is the number of the management staffs?
How many management staffs are from St. Brieux?
How many family members work for the company?
Are family members among the management team or board of directors?
How do you source for workers?
How many valid patents does the company have?
How many board members does the company have?
Are the company's board members from St. Brieux?
Are the board members family and friends?
Do they have any professional background in manufacturing?
Has the business experience any major challenges/ problems that threatened the existence of the company?
If yes, how was these problems managed?
Did you at any point in time have any problem in recruiting workers for your company?

If yes, how were you able to solve the problem?

C. Community Characteristics

- **Infrastructure**

What type of Electrical grid does the town have?
Does the town have access to telecommunication and internet and at what speed?
How accessible are the highways linking the town to other part of the Province?
Do you think the presence of airport in this area have made business transaction more effective?
How useful is the rail line to the company?
What role has the community played in the success of the company?
What can you say about tax laws and their effect on the company?

D. Product Characteristics

Why do you buy this company's product?
Are there any specific characteristics that make the company's product unique?
Are the company's spare parts standardized or specific? (I.e. can any spare parts manufactured by other company fit to Bourgault's products).

Questions from Previous discussion

Why and when did Frank shift from dealership to manufacturing?
What was the percentage of loads on the truck when the highway was bad?
When and why did the company start manufacturing air seeders?
Does Bourgault Industries Limited custom manufacture for full-line manufacturers?
In your own opinion, what do you think are the factors enhancing the success of this company despite the cost incurred by being located in St Brieux as oppose to another place where cost can be minimized?